

**EXCHANGE OF KNOWLEDGE THROUGH TRANSLATION:
JAN BAPTISTA VAN HELMONT AND HIS EDITORS AND
TRANSLATORS IN THE SEVENTEENTH CENTURY**

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I declare that the work presented in this thesis is my own

Sietske Fransen

'wesende 't gesang mijns inval's
(J. B. van Helmont, *Dageread*, sig. **2^r)

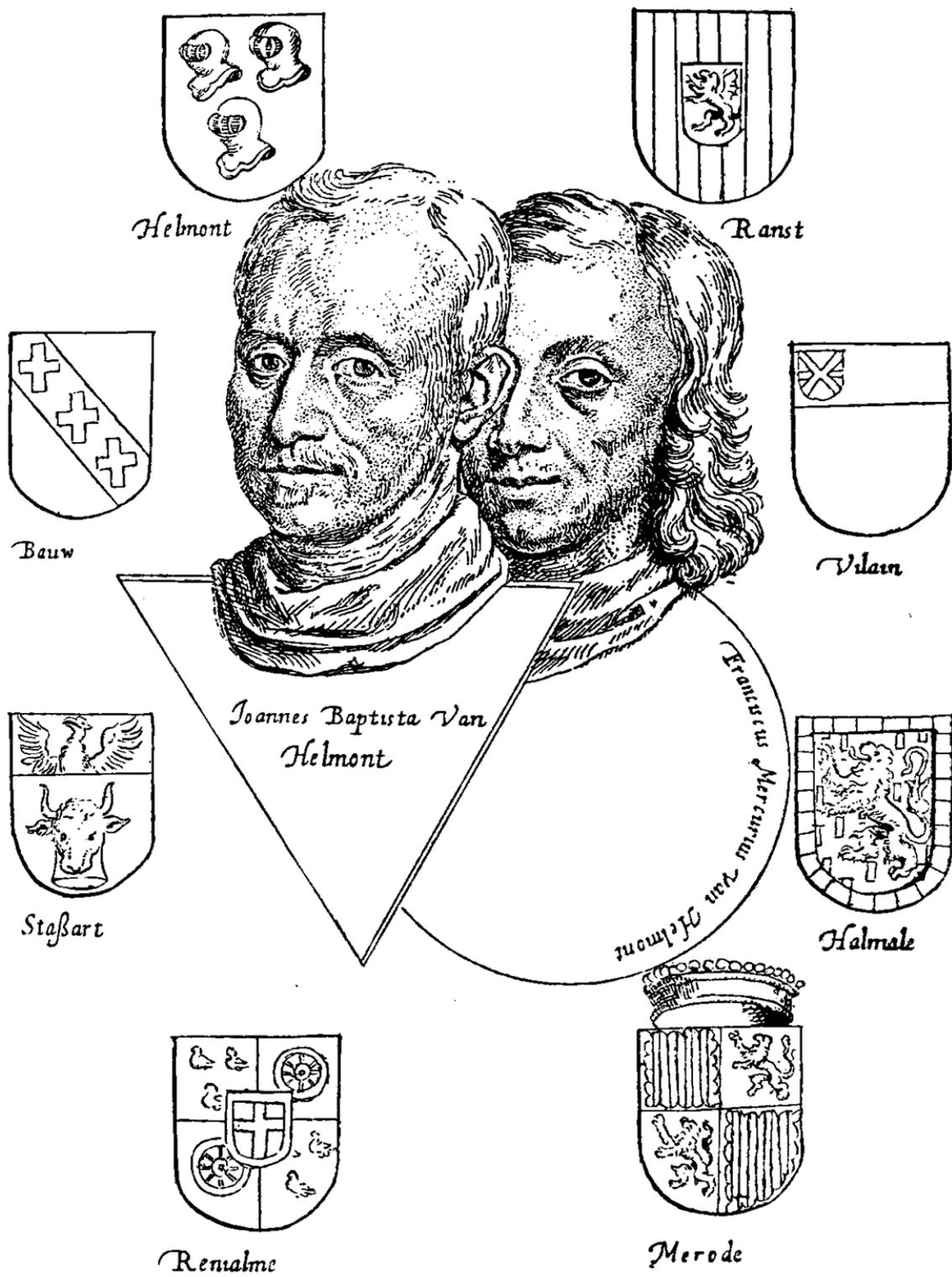


Figure 0.1: Father and Son Van Helmont, in J. B. van Helmont, *Dageraad*, Amsterdam 1659.

Abstract

This thesis is a case study illustrating the circulation of scientific knowledge as achieved through translation in the seventeenth century. Providing the foundation of education in the liberal arts, Latin had an enormous influence on written science in the early modern period. This was evident not just on the level of the vocabulary. Latin grammar structured thought, and thereby extended the influence of the language to an epistemological level. However, the authority of Latin was increasingly contested throughout the sixteenth and seventeenth centuries. To examine this shift of authority away from Latin to the vernacular languages, and to examine the way this impacted upon both the theory and practice of science, I have focused on the Flemish physician and alchemist Jan Baptista van Helmont (1579-1644). Van Helmont provides a highly revealing case study for multiple reasons: he himself wrote in both Latin and the Dutch vernacular; he had very clear ideas about translation and its relationship to the acquisition of knowledge; finally, his works were translated into English, French and German within forty years after his death.

In the first two chapters I examine Van Helmont's use of language in the two idioms in which he published, Dutch and Latin. I compare his views about language and translation, by closely connecting them to his philosophy of the mind and his practice of (self-)translation, which turns out to deviate markedly from his own theories. Chapter 3 describes how Van Helmont's son, Francis Mercury (1614-1698), was personally involved with almost all the posthumously printed editions and translations of his father's works. I argue that Francis Mercury's influence on the spread of his father's intellectual heritage is far more extensive than has hitherto been assumed. Chapters 4 and 5 analyse the eight translations of Van Helmont's works into English, French and German. These translations were written between 1650 and 1683. I examine them with respect to theoretical texts (Chapter 4) and practical texts (Chapter 5) in order to show that there were no clear-cut or standardized methods for translating scientific knowledge and that the translators' interpretations had therefore a major impact on the way Van Helmont's ideas were received in different linguistic domains.

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Editorial Principles

Translations are mine, unless otherwise stated.

In transcriptions from manuscripts, I have changed the use of v/u in line with modern standards. I have replaced the symbol ‘&’ by ‘and’ (or the equivalent in any other language quotation). The English form of ‘y’ is changed to accord with modern standards, so that ‘ye’ becomes ‘the’, and ‘yt’ became ‘that’, etc. Abbreviations in manuscript and early printed books have been rendered into their modern form without further comment. Punctuation is adapted where needed.

I have given full bibliographical references on the first occasion a work is cited; for subsequent citations, I have given only the author and the short title. Full bibliographical references for all works can also be found in the bibliography.

When I refer to ‘Van Helmont’, either in the running text or the footnotes, I always mean Jan Baptista van Helmont. His son, Francis Mercury van Helmont, is always named by his first names or initials.

List of Abbreviations

AAM	Archiepiscopal Archives in Mechelen, Belgium
BL	British Library, London
HAB	Herzog August Bibliothek, Wolfenbüttel
MS	Manuscript
<i>Aufgang</i>	Jan Baptista van Helmont, <i>Aufgang der Artzney-Kunst, das ist: Noch nie erhörte Grund-Lehren von der Natur...</i> , translated by Christian Knorr von Rosenroth, Sulzbach 1683.
<i>CERL Thesaurus</i>	Consortium of European Research Libraries, online database. www.cerl.org
<i>Conway Letters</i>	Marjorie Hope Nicolson and Sarah Hutton, eds., <i>The Conway Letters: The Correspondence of Anne, Viscountess Conway, Henry More and Their Friends: 1642-1684</i> , Oxford 1992.
<i>Dageraad</i>	Jan Baptista van Helmont, <i>Dageraad, oft nieuwe opkomst der Geneeskunst, in verborgen grond-regulen der Nature</i> , Rotterdam 1660 [Facsimile reprint by Koninklijke Vlaamse Academie voor Geneeskunde van België, Antwerp 1944].
<i>DWG</i>	Jacob and Wilhelm Grimm, eds., <i>Deutsches Wörterbuch</i> , 16 vols, Leipzig 1854-1961. http://www.woerterbuchnetz.de/DWB
EMLO	Early Modern Letters Online. http://emlo.bodleian.ox.ac.uk
HP	Hartlib Papers, held at the Sheffield University Library.
<i>MNW</i>	E. Verwijs, J. Verdam, e. a., eds., <i>Middelnederlandsch Woordenboek</i> , 11 vols, The Hague 1882-1973. www.wnt.inl.nl
<i>Opuscula medica inaudita</i>	Jan Baptista van Helmont, ‘Opuscula medica inaudita’, in id., <i>Opera omnia, novissima hac editione ab innumeris mendis repurgata, et indice... instructa, una cum introductione atque clavi Michaelis Bernhardi Valentini</i> , Frankfurt 1707.

- ODNB *Oxford Dictionary of National Biography*, online ed., Oxford 2004. www.oxforddnb.com
- OED *Oxford English Dictionary*, online ed., Oxford 2014. www.oed.com
- Ortus medicinae* Jan Baptista van Helmont, *Opera omnia, novissima hac editione ab innumeris mendis repurgata, et indice... instructa, una cum introductione atque clavi Michaelis Bernhardi Valentini*, Frankfurt 1707.
- Pagel, *Van Helmont* Walter Pagel, *Joan Baptista van Helmont: Reformer of Science and Medicine*, Cambridge and New York 1982.
- Übersetzung* H. Kittel, J. House, and B. Schultze, *Übersetzung: Ein internationales Handbuch zur Übersetzungsforschung = Translation: An International Encyclopedia of Translation Studies = Traduction: Encyclopédie internationale de la recherche sur la traduction*, 3 vols, Berlin 2004-11.
- WNT M. de Vries and L. A. te Winkel, *Woordenboek der Nederlandsche taal*, 29 vols, The Hague 1882-1998. www.wnt.inl.nl

GENERAL INTRODUCTION

‘Does your language shape how you think?’, asked Guy Deutscher in a 2010 article in the *New York Times*.¹ Contradicting those linguists and cognitive scientists who are of the opinion that the restraining effects of language on logical reasoning are insignificant, Deutscher argues that empirical evidence demonstrates how our mother tongue exercises a powerful influence ‘in areas of thought such as memory, perception, and associations or in practical skills such as orientation.’² Jan Baptista van Helmont (1579-1644) could not have agreed more. Three hundred and fifty years before Deutscher, the Flemish physician wrote that every idea one conceives is, when verbalized, shaped into words in one’s mother tongue. Being the first language one learns, one’s native language is ingrained in the mind and becomes the first carrier of ideas.³ As a result, every translation further removes one’s process of thinking away from one’s original idea.

Van Helmont explained the difficulty of writing in another language with a musical example. If the organist, he said, hears a song, he will have difficulty playing along straight away, for, although his soul understands the sound, his fingers (as the makers of tones, just as other body parts are the makers of words) do not follow as smoothly and quickly. However, should the organist see tablature of the same song, he would be able to play it immediately, as if natural to the mind, and the tablature would send the music straight to his fingers. If he received the sheet music instead of tablature, it would be harder to play, as he would first mentally have to change the sheet music into tablature.⁴

As a musician myself, the comparison between understanding musical notation and translating between languages immediately drew me to Van Helmont’s work. Although I would much prefer sheet music over tablature to play a song, writing this thesis sometimes made me feel trapped in Van Helmont’s own thought experiment of language and translation. The translations discussed in this thesis involve, in Van Helmont’s case, early modern Dutch and Latin, yet I needed to analyse them in English. My own first language started to move back and

¹ Guy Deutscher, ‘Does Your Language Shape How You Think?’, *The New York Times*, 26 August 2010 (<http://www.nytimes.com/2010/08/29/magazine/29language-t.html>)

² Guy Deutscher, *Through the Language Glass*, London 2011, pp. 234-5. On current views by linguists and cognitive scientists, see: Steven Pinker, *The Stuff of Thought: Language as a Window into Human Nature*, London 2008, pp. 124-36. An impressive instantiation of Deutscher’s thesis can now be seen in the *Dictionary of Untranslatables: A Philosophical Lexicon*, ed. by Barbara Cassin, trans. by Steven Rendall e. a., Princeton and Oxford 2014 (originally published in France in 2004 as *Vocabulaire européen des philosophies: Dictionnaire des intraduisibles*). For an alternative point of view, see the stimulating review of the dictionary by Adam Gopnik in a recent issue of the *New Yorker* (26 May 2014, p. 36): ‘Word Magic: How Much Really Gets Lost in Translation?’

³ Jan Baptista van Helmont, *Dageraet, oft nieuwe opkomst der geneeskunst, in verborgen grondt-regelen der Nature...Nooyt in’t licht gesien, en van der Autbeur selve in’t Nederduyts beschreven*, Amsterdam 1659, sig. **v. There is a facsimile of the 1660 edition (Rotterdam, Joannes Naeranus), published by the Flemish Academy of Medicine, Antwerp 1944. The latter will be cited in this dissertation as *Dageraed*.

⁴ Van Helmont, *Dageraed*, sig. [*4]^v-**r.

forth between Dutch and English (unfortunately never to Latin) – I switched my preferred musical notation, so to speak, and more often than not I had problems putting my thoughts into words.

In Van Helmont's time, mother tongues – or vernacular languages – were not yet the most common languages for science, and, what is more, were regarded as possessing a lower status than Latin.⁵ According to Van Helmont, thought influenced language and language influenced thought. And although in his opinion the mother tongue was the best medium to express one's ideas, most of his works were written and published in Latin, a step away from the first language in which his ideas were formed. In this thesis I shall analyse how Van Helmont worked with his own two languages, how they related to each other, and how his contemporaries wrote about and worked with Latin and vernaculars. Since the idea of translation – from idea to image, to word and subsequently to foreign words – is central to Van Helmont's views about language, I shall analyse his work as a self-translator, and compare his own work to the many translations of his work that were produced during the second half of the seventeenth century.

The topic of this thesis has been wrongly cast as dry and marginal to histories of literature and science. After all, it is the original text and the actual author who are the heroes in literature; translators and their translations seem condemned to a liminal existence eked out in the shadows of the actual authors. In this thesis, however, I shall argue that there is more to translations than being more or less faithful replicas of the original. Translators had their impact on the texts they produced, through their introductions to the readers, but also in the vocabulary they decided to use in rendering the meaning of texts into a new language. What is more, since the translation was often the only text the reader ever saw, the reader was therefore seeing the author through the glasses of the translator. As we shall see, the concept of translation was used to explain how God's image would enter the human mind, how this image was translated into ideas, and eventually words. Van Helmont was no exception to this pattern. The study of translation in the early modern period forces us to consider philosophies of language, how ideas are conceived in people's minds, and how these ideas can be translated into images and words. Understanding translation has, therefore, a major impact on the concept and dispersion of knowledge. How can knowledge – more specifically true knowledge – be perceived and put into words? The translation of science was a philosophical endeavour with implications extending far beyond the more profane forms of translation between languages. Along this line, this thesis covers, besides early modern translation theory and practice, also the

⁵ Harold J. Cook and Sven Dupré, 'Introduction', in *Translating Knowledge in the Early Modern Low Countries*, ed. by H. J. Cook and S. Dupré, Berlin 2013, p. 11. See also Toon Van Hal, 'Virtues and Vices Ascribed to the Dutch Language', in *ibid.*, pp. 21-39; Theo Hermans, 'Introduction', in *Door eenen engen hals: Nederlandse beschouwingen over vertalen 1550-1670*, ed. by T. Hermans, The Hague 1996, pp. 11-2; and Michela Pereira, 'Alchemy and the Use of Vernacular Languages in the Late Middle Ages', *Speculum* LXXIV (1999), pp. 336-56.

philosophy of the mind, the search for true knowledge and the role of language in the exchange of knowledge.

This thesis seeks to find a position for itself on the adjoining borders of several established fields of study. Firstly, I should mention Translation Studies, a relatively young academic discipline that since the 1970s has focused primarily on literary translation, and translation theory in recent history.⁶ Nevertheless, over the past decade a move towards the study of translation in history has taken place, a move inaugurated some years earlier by the publications of Theo Hermans.⁷ The three-volume *International Encyclopedia of Translation Studies* gives an impressive account of the current state of the art in this field, with the second volume being almost entirely devoted to translation in history.⁸ The same encyclopedia pays attention to the role of the translator, curiously a part in the process of translation that has not received much attention within translation studies. However, this is also slowly changing, and this thesis will aim to contribute new insights specifically to this part of historical translation studies.⁹

Secondly, it is important to point out that in the past two decades, in the field of the history of science and medicine, there has been a significant shift towards the practice and the practitioners of science.¹⁰ To the broad outlines adumbrated by the many essential studies on the major movements during the so-called Scientific Revolution, more practice-oriented case studies are providing detail and nuance.¹¹ The focus is shifting onto objects as the physical medium of exchange, and attention is being directed towards letters and the personal notebooks of scholars, as well as the way in which people communicated information about the experiments they conducted, the observations they made and, more generally, the experiences they gathered.¹² Translation itself is becoming more important in the field of history of science,

⁶ Sandra Bermann and Catherine Porter, eds., *A Companion to Translation Studies*, Chichester 2014, pp. 2-6.

⁷ For example: Theo Hermans, 'Renaissance Translation between Literalism and Imitation', in *Geschichte, System, literarische Übersetzung – Histories, Systems, Literary Translations*, ed. by Harald Kittel, Berlin 1992, pp. 95-116; and *Door eenen engen hals: Nederlandse beschouwingen over vertalen, 1550-1670*, ed. by T. Hermans, The Hague 1996.

⁸ Harald Kittel, Juliane House, Brigitte Schultze, e.a. (eds), *Übersetzung: Ein Internationales Handbuch zur Übersetzungsforschung = Translation: An International Encyclopedia of Translation Studies = Traduction: Encyclopédie Internationale de la Recherche sur la Traduction*, 3 vols, Berlin 2004-11 (hereafter *Übersetzung*).

⁹ Lawrence Venuti, *The Translator's Invisibility: A History of Translation*, London 1995.

¹⁰ Tara E. Nummedal gives a good overview of this shift in the history of alchemy in: 'Words and Works in the History of Alchemy', *Isis* CII (2011), pp. 330-37; Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution*, Chicago 2004.

¹¹ Charles Webster, *The Great Instauration: Science, Medicine, and Reform, 1626-1660*, London 1975 (repr. Bern 2002); Steven Shapin, *The Scientific Revolution*, Chicago 1996; Peter Dear, *Revolutionizing the Sciences: European Knowledge and Its Ambitions, 1500-1700*, Houndmills, Basingstoke 2001; for studies into the practice of science, see for example: Lawrence M. Principe, *The Secrets of Alchemy*, Chicago 2012.

¹² See for example Valentina Pugliano, 'Botanical Artisans: Apothecaries and the Study of Nature in Venice and London, 1550-1610', Ph.D. thesis, Oxford University, 2012; a special issue of *NTM Journal of the History of Science, Technology and Medicine* XXI.1 ('Paper Technology in der Frühen Neuzeit') (2013). See also Lorraine Daston and Elizabeth Lunbeck (eds), *Histories of Scientific Observation*, Chicago 2011.

as is testified to by Peter Burke's many publications.¹³ Many have followed him in recent years, and are beginning to connect translation with the practice of science, and this is generating stimulating new studies.¹⁴ This thesis intends to contribute to this new field through an in-depth study of one important early modern scholar and his reception through translation.

Finally, this thesis has an important relationship with the history of the Republic of Letters.¹⁵ Seventeenth-century figures embedded in 'networks' of scholars were constantly involved in the practice of translation. Some studies have recently appeared on the role of translation at the Royal Society in London during the seventeenth century, but a richer and more nuanced understanding of the daily practice is needed.¹⁶

Translation is characterised by two principal aspects: firstly, the translator transforms the original text and its meaning through the process of translation; this, secondly, enables the translator to present the work to an audience that was previously not able to read the text.¹⁷ In examining the translations of Van Helmont's texts, this thesis will combine these two aspects by contextualising the translations and uncovering the choices made by the respective translators. Translations always bear the mark of the translator, even when the translator is committed to the goal of rendering the text as literally as possible. Therefore, the different translations available of Van Helmont's works do not only give us an opportunity to look for changes in meaning in comparison with the original, but also offer an opportunity to investigate how different translators solved the problems of translation. Those differences reveal personal choices on the part of the translators, every time they try to relate to a specific audience and to convey a particular message to it.

By focusing on translation, this thesis also offers new perspectives on the longstanding debate about the relationship between theory and practice.¹⁸ As we shall see in Chapter 1, Van

¹³ Peter Burke, *Languages and Communities in Early Modern Europe*, Cambridge 2004; Peter Burke and R. Po-chia Hsia (eds), *Cultural Translation in Early Modern Europe*, Cambridge 2007.

¹⁴ Francisco Bethencourt and Florike Egmond (eds), *Cultural Exchange in Early Modern Europe III: Correspondence and Cultural Exchange in Europe, 1400-1700*, Cambridge 2007; Sven Dupré and Christoph Lüthy (eds), *Silent Messengers: The Circulation of Material Objects of Knowledge in the Early Modern Low Countries*, Berlin 2011; Cook and Dupré (eds), *Translating Knowledge in the Early Modern Low Countries*.

¹⁵ The literature on this topic is varied. To mention only a few contributions: Mark Greengrass, Michael Leslie, and Timothy Raylor (eds), *Samuel Hartlib and Universal Reformation: Studies in Intellectual Communication*, Cambridge 1994; Anne Goldgar, *Impolite Learning: Conduct and Community in the Republic of Letters, 1680-1750*, New Haven 1995; Dirk van Miert (ed.), *Communicating Observations in Early Modern Letters (1500-1675): Epistolography and Epistemology in the Age of The scientific Revolution*, London and Turin 2013.

¹⁶ See for example Felicity Henderson, 'Making "The Good Old Man" Speak English: The Reception of Antoni van Leeuwenhoek's Letters at the Royal Society, 1673-1723', in *Translating Knowledge*, ed. by Cook and Dupré, *Translating Knowledge in the Early Modern Low Countries*, pp. 243-68; and the forthcoming PhD thesis by Niall Hodson, 'Henry Oldenburg and Translation at the Early Royal Society', Ph.D. thesis, Durham University [expected 2014].

¹⁷ Venuti, *The Translator's Invisibility*, pp. 17-9.

¹⁸ Lissa L. Roberts, Simon Schaffer, and Peter R. Dear (eds), *The Mindful Hand: Inquiry and Invention from the Late Renaissance to Early Industrialisation*, Amsterdam 2007.

Helmont had a clear vision about how ideas were conceived in the mind, shaped into images and subsequently into words. His views concerning translation between languages were based on the concept that every translational step would obscure thoughts, removing them further from the truth. Modern Translation Studies analysing the early modern period focus mainly on translation theories and very little on translation practice.¹⁹ It is my goal to bridge the gap by placing Van Helmont's ideas about language, thought, and translation in historical perspective, and by then investigating how well (or not) they corresponded to the practice at the time. This last step will be undertaken by examining more closely how Van Helmont translated his own works carefully negotiating between Dutch and Latin. This division repeats itself in the case of his translators; we shall see that some of them espoused precise ideas about language and translation, although they did not always apply them consistently in their actual practice, as is evident in the way they rendered Van Helmont's texts into their own vernaculars.

Like all translators, early modern ones were at least bilingual; all of them had a command of Latin, and, depending upon their specific background, they were conversant in English, French, or German. Many, however, were also multilingual, as some of them also read Dutch, and probably had knowledge of some other language(s). As is common with bi- and multi-lingual persons, they would not necessarily have the exact same fluency in their languages throughout all of their life, or, indeed, in all aspects of their life. For example, during their childhood years their mother tongue would have obviously been the first and dominant language. However, during the educational years, Latin would have advanced to become the most active and used language, especially in their field of study. We can think of young bilingual scholars, conversant in Latin and English, who would probably not have known the Latin terminology for the games they were playing in the street or the pieces of clothing they might have been wearing. On the other hand, technical terms in their fields of study would first come to them in Latin, and only in English after translation.²⁰ This has a major impact on the way we shall look at the use of vocabulary by 'our' translators, including Van Helmont himself. If we follow Van Helmont in arguing that the effect of translation is to obfuscate the original meaning, then it raises a crucial question: Which language was Van Helmont's own first or dominant language? Evidently, the answer may vary depending upon the topic. Yet Van Helmont was not willing to differentiate the matter in this way. Although he clearly stated that his first language was his mother tongue, namely Dutch, and although he was adamant about his wish to employ this language in order to be able to communicate better with his fellow countrymen (his 'neighbours'), this statement is

¹⁹ Belén Bistué, *Collaborative Translation and Multi-Version Texts in Early Modern Europe*, Farnham 2013, pp. 9-12.

²⁰ See for an overview on bilingualism, François Grosjean, *Bilingual: Life and Reality*, Cambridge, MA 2010. On switching between several languages in different 'departments' of one's life, see *ibid.*, Ch. 3 ('The Functions of Languages'), pp. 28-38.

evidence of his philosophical allegiance to the Paracelsian tradition rather than of a real *aperçu* in the complex nature of his relationship to language.

Bilingualism in early modern science has important implications for our understanding of the mixture of Latin and vernacular as it was present throughout the seventeenth century. In some fields the dominant language was still very much Latin, as for example in philosophy and theology, but also in Paracelsian medicine, as we can deduce from the fact that most Paracelsian authors wrote in Latin.²¹ Within the late sixteenth- and seventeenth-century tradition of Paracelsian and chemical medicine, however, we shall see how a difference arose between the more theoretical texts (where Latin was dominant) and the more practical ones, where the general trend favoured the use of vernacular languages.

For various reasons, the life and works of Van Helmont provide the case study for this thesis: he wrote in two languages; he reflected on his own use of language; his work was translated many times in a range of different languages during the fifty years after his death. The purpose of my dissertation is not to provide an exhaustive account of the ‘translation of science’ in early modern Europe. Instead, I hope to contribute to the current debate about the role of translations and translators in the exchange of knowledge throughout the early modern period. Jan Baptista van Helmont lends himself to such a study due to the vast amount of material (his works and its translations) that he managed to produce. This thesis will shed light on the practice of translation in the field of science, as well as on the reception of Van Helmont through his translations. The translations of his works vary greatly in method and aims (Chapters 4 and 5). However, even though all the translators were ‘language workers’, kneading their own languages in such a way that it would reflect Van Helmont’s ideas, they sporadically articulated their views about what they were doing. The few exceptions, Walter Charleton and Christian Knorr von Rosenroth, give us a valuable opportunity to better understand the function, role and status of translators within the sciences. Moreover, the translations of the Helmontian body of works will show how the differences resulting from the specific interests of the translator would leave the readers with different images of the same Van Helmont. These differences have been often overlooked when discussing his reception and the way in which his ideas were transferred into different contexts. There are indeed cases, as we will see, in which ideas trickling from the pages of the translations are to be attributed to the translator rather than to Van Helmont himself. Investigating these issues will also be an opportunity to discuss whether standards and criteria of translation were different at the time when compared with what we assume to be a reliable rendition of an original piece of writing in a different language today.

²¹ Joachim Telle, ‘Die Schreibart des Paracelsus im Urteil deutscher Fachschriftsteller des 16. und 17. Jahrhunderts’, *Medizinhistorisches Journal* XVI (1981), pp. 78–100.

Before a brief description of the thesis chapter by chapter, it seems sensible to introduce here the main character of this study. Jan Baptista van Helmont was a physician from Brussels. He was born into a noble family, as the youngest child of Christiaan van Helmont and Marie de Stassart. His father died in 1580, and from that moment on, Van Helmont saw himself not only as the youngest but also as ‘the most worthless’ (*vilissimus*) of his brothers and sisters.²² It was decided that he would undertake a career of studies – in 1594 he gained his philosophy degree at the University of Leuven, and went on to study medicine. Disillusioned, however, with the low standard of the teaching imparted there, he refused to be appointed Master of Arts at that University. By self-study and attending lectures at the newly founded Jesuit school in Leuven, he continued to further his medical knowledge. He also followed classes taught by Martin del Rio (1558-1608), a Jesuit priest who wrote a renowned book against the use of magic, *Disquisitiones magicæ* (Mainz 1595). Despite his eagerness to learn from Del Rio, Van Helmont was once more disappointed by the poor level of his learning; he claimed that Del Rio could only teach him useless fodder (*stipulae inanes*).²³ He then decided to spend years studying logic, mathematics, astronomy, moral philosophy, the mystical Christian tradition, Stoicism, herbal medicine and the most important authorities in both ancient and modern medicine, while travelling through Europe and taking up apprenticeships with practising physicians.²⁴

After ten years of travels and studies, after my graduation in medicine, in the year 1609, already married, I withdrew from people and moved to Vilvoorde, so that, being less busy, I could keep exploring the kingdoms of plants, animals and minerals, through painstaking examination, willing to conduct investigations for seven years by dissecting bodies and separating all substances.²⁵

In this period he also had at least five children. One of them, Francis Mercury (1614-1699), would go on to become a famous physician himself and a pivotal figure in the dissemination of his father’s ideas.²⁶

²² Jan Baptista van Helmont, ‘Studia authoris’, in *Opera omnia*, Frankfurt 1707, § 1, p. 16. Throughout my thesis, I shall refer to this – last – edition of Van Helmont’s complete works as *Ortus medicinae*.

²³ Id., ‘Studia authoris’, § 7, in *Ortus medicinae*, p. 16. For Martin Del Rio, see P. G. Maxwell-Stuart (ed.), *Martin Del Rio: Investigations into Magic*, Manchester and New York 2000.

²⁴ Id., ‘Studia authoris’, § 7-18, in *Ortus medicinae*, pp. 16-18.

²⁵ Id., ‘Promissa authoris’, § 7, in *Ortus medicinae*, p. 12: ‘Post decennium antem peregrinationis, et studiorum, a promotione in arte medendi, habita Lovanii, tandem Anno 1609, jam conjugatus, me Gilvordiam subduxi e vulgo, ut minus districtus, pergerem perlustrando regna vegetabilium, animalium, ac mineralium, curiosa analysi, corpora aperiendo, separandoque universa, per solidum septennium indagaturus.’

²⁶ There is uncertainty about the number of children Van Helmont had and how many of them were boys or girls. Corneille Broeckx mentions two daughters (Pelagie-Lucie and Olympe-Claire) in ‘Notice sur le Manuscrit Causa J.B. Helmontii, déposé aux archives archiépiscopales de Malines’, in *Annales de l’Académie archéologique belge* IX (1852), p. 277; Walter Pagel claims there were four daughters and one son, in *Joan Baptista Van Helmont: Reformer of Science and Medicine*, Cambridge, London and New York 1982, p. 7 (hereafter Pagel, *Van Helmont*).

Van Helmont published several works during his lifetime: *De magnetica vulnerum curatione* ('About the Magnetic Healing of Wounds', Paris, 1621), *Supplementum de Spadanis fontibus* ('Additional Information on Spa Waters', Liège, 1624), *Febrrium doctrina inaudita* ('A New Theory of Fevers', Antwerp, 1642) and *Opuscula medica inaudita* ('New Medical Tracts', Cologne, 1644). His first work on the magnetic cure of wounds caused him severe trouble with the Inquisition, after the Jesuit Jean Roberti (1569-1651) denounced the treatise as heretical. Roberti wrote a pamphlet containing twenty-seven heretical propositions extracted from Van Helmont's work, arranged into a list with the signatures of sixteen prominent professors opposed to the work, mainly from the University of Leuven (Van Helmont's *alma mater*). The Inquisition responded to Roberti's attack by condemning the propositions from *De magnetica vulnerum curatione* in 1625 and interrogating Van Helmont several times between 1627 and 1630. Eventually, this led to his imprisonment in 1634, soon changed to house arrest through the intervention and help of his mother-in-law, Isabella van Halmale, a lady of higher status than Van Helmont himself.²⁷ The house arrest lasted for twenty-eight months in total, which caused him hardship and depression, as is conveyed in a letter which he wrote on 10 December 1638 to the Bishop of Mechelen, Jacob Boonen (1573-1655):

I am going through the destruction of my reputation, the expenses of the lawsuit, the sufferings, the grief, the irreparable loss of the most important period of my life and twenty-eight months during which I was prevented from taking care of my family. I have endured punishments for which one will never atone in this age. I mourn all my life the death by plague of my two oldest children (who had completed their studies in philosophy and mathematics under my supervision).²⁸

Van Helmont was officially rehabilitated by the Bishop of Mechelen only in 1646, two years after his death.²⁹ The years of the trial and the house arrest were clearly a period during which Van Helmont was, or at least felt, unable to publish his works, although he kept researching and

²⁷ Craig Harline, *Miracles at the Jesus Oak: Histories of the Supernatural in Reformation Europe*, New York 2003, p. 227-8.

²⁸ Letter from Van Helmont to Bishop Boonen, 10 December 1638, Mechelen, Archiepiscopal Archives Mechelen, Folder Helmont II, fol. 97r: 'Transeo interim fame mee labem, litis expensas, labores, tedia, irreparabile melioris etatis damnum, atque impeditos 28. menses, quo minus sustentando familie incumberem. Hec enim damna tuli, que nunquam hoc seculo rependes. At binorum primo genitorum (qui cursum Philosophie et matheseos sub me compleverant) peste extinctorum necem, in vitam semper deploro.'

²⁹ All the documents from the inquisitorial trial and the documents and notes that were taken from Van Helmont's house at the time of his arrest are in the Archiepiscopal Archives in Mechelen. For information on the trial see: C. Broeckx, 'Notice sur le Manuscrit Causa J. B. Helmontii, déposé aux archives archiépiscolales de Malines', in *Annales de l'Académie Archéologique Belgique* IX (1852), pp. 277-327 and 341-67; id., 'Interrogatoires du docteur J. B. Van Helmont sur le magnétisme animal', in *Annales de l'Académie Archéologique Belgique* XIII (1856), pp. 306-50; Pagel, *Van Helmont*, pp. 9-13; Harline, *Miracles at the Jesus Oak*, 'Ch. 4 ('The Perfectly Natural Cure of Wounds'), in pp. 179-239, 291-304; Carlos Ziller Camenietzki, 'Jesuits and Alchemy in the Early Seventeenth Century: Father Johannes Roberti and the Weapon Salve Controversy', *Ambix* XLVIII (2001), pp. 83-101.

writing. In 1642 he received an ecclesiastical *imprimatur* in Antwerp to publish a treatise on the theory of fevers.³⁰ This work was followed in 1644 by the publication of *Opuscula medica inaudita*, which included the earlier publication on fevers and three additional treatises.³¹ Van Helmont died on the last day of the same year, leaving his two main works to be published posthumously.³² These were two versions of his medical *summa* ‘Daybreak’ – the Latin *Ortus medicinae*, published for the first time in 1648 (Amsterdam, Louis Elzevier), and the Dutch *Dageraad*, published in 1659 (Amsterdam, Jan Jacob Schipper).³³ Although both texts were published posthumously, there is no doubt about Van Helmont’s authorship.³⁴ Moreover, in the absence of precise dates, it has been generally assumed that he wrote his Dutch work first, and eventually translated it into Latin, adding new treatises and, in some cases, expanding the original ones.³⁵ The *Dageraad*, however, contains passages in which Van Helmont reports that he had been experimenting for twenty-one years, and that he was grateful to God for having allowed him to practice as a physician for thirty years.³⁶ This suggests that the work was written at a more mature age and probably at the same time as, rather than prior to, the *Ortus medicinae* (see also Chapter 2).³⁷

We know from the introduction to *Ortus medicinae* written by Van Helmont’s son, Francis Mercury, that his father gave him the manuscripts of his Latin writings so that they could be published after his death.³⁸ The history of the *Dageraad* is recounted in the introduction to the

³⁰ Jan Baptista van Helmont, *Februm doctrina inaudita*, Antwerp 1642. See P. Nève de Mévergnies, *Jean-Baptiste van Helmont, philosophe par le feu*, Liège and Paris 1935, p. 141.

³¹ Jan Baptista van Helmont, *Opuscula medica inaudita*, Cologne 1644. The book includes a treatise on the stone (*De lithiasi*), one on fevers (*De Febris*), a scathing review of the system of Galenic humoralism (*De humoribus Galeni*) and a treatise on the plague (*De peste*).

³² *Opuscula medica inaudita* was republished as the second part of the *Ortus medicinae* from the latter’s first edition in 1648 onwards.

³³ ‘Dutch’ is the term for the West-Germanic language, derived from Old Frankish, currently spoken as the native language in The Netherlands, Belgium and Surinam. Flemish is a dialect-form of Dutch spoken in parts of Belgium, and will only be used to describe this specific dialect. For the history of the Dutch language, see: Marieke van der Wal and Cor van Bree, *Geschiedenis van het Nederlands*, Houten 2008, 5th rev. ed., Ch. 4. (‘De eerste Nederlandse teksten en hun context’), pp. 79-101.

³⁴ Pagel, *Van Helmont*, pp. 14-6; A. J. J. Van de Velde, ‘Helmontiana I: *De Dageraad* van J.B. van Helmont’, in *Verslagen en Mededelingen van de Koninklijke Vlaamse Academie voor Taal en Letterkunde*, Ghent 1929, pp. 471-4.

³⁵ The main source for this assumption is the introduction to the Jan Baptista van Helmont, *Aufgang der Artzney-Kunst, das ist: Noch nie erhörte Grund-Lehren von der Natur... Geschrieben von Johann Baptista von Helmont... auf Beyrathen dessen Herrn Sohnes, Herrn H. Francisci Mercurii Freyherrn von Helmont, In die Hochteutsche Sprache übersetzt, in seine rechte Ordnung gebracht, mit Beyfügung dessen, was in der Ersten auf Niederländisch gedruckten Edition, genannt, Die Morgen-Röhte...auch einem vollständigen Register*, translated by Christiand Knorr von Rosenroth, Sulzbach 1683, the German translation of the *Ortus medicinae*, published in 1683 in collaboration with Franciscus Mercurius van Helmont (hereafter *Aufgang*). Van Helmont’s ideas about the mother tongue (see Chapter 1 below), which he describes in the introduction to the *Dageraad*, also seem to suggest that he wrote in Dutch first.

³⁶ Van Helmont, *Dageraad*, pp. 87, 183.

³⁷ I am not the first one to suggest that the *Dageraad* was written during Van Helmont’s mature years. See also Van de Velde, ‘Helmontiana I: *De Dageraad* van J. B. van Helmont’, pp. 468-74.

³⁸ Van Helmont, ‘Vita authoris’, in *Ortus medicinae*, sig. [B4]r: ‘Paucis diebus obitum ejus praecedentibus, inquiebat mihi: “Cape omnia mea scripta, tam cruda et incorrecta, quam penitus expurgata, eaque

German translation of the *Ortus medicinae*, the *Aufgang der Artzney-Kunst*, by Christian Knorr von Rosenroth (1636-1689), and published in collaboration with Francis Mercury van Helmont in 1683:

Originally, it had been his father's wish to write the entire work in Dutch; he had already produced a large part of it, including an introduction in Dutch. But because he realised that he needed to use many expressions (*Redens-Arten*) which were uncommon to Dutch people, he gave this Dutch treatise – which he had named after the dawn, or *Dageraad* in his mother tongue – to his daughter. A good friend borrowed it from her and had it published straightaway. But since his father had not been able to produce an introduction to the Latin work, he – the son – had the same Dutch introduction added to this publication, after his father's death.³⁹

Jan Baptista van Helmont has been studied as a 'true character of the cradle of modern science', as Walter Pagel wrote in concluding his monograph on the author.⁴⁰ In the past, while some attention has been given to the reception of Van Helmont's work in narrowly-defined national milieus (primarily England), the broader cultural and European contexts and, above all, the influence of its translations have been ignored. Previous investigators of English Paracelsianism, such as Walter Pagel, Allen G. Debus and P. M. Rattansi, and most recent historians of Helmontianism, such as Antonio Clericuzio, Steffen Ducheyne, Guido Giglioni, William Newman and Lawrence Principe, have extensively studied the appropriation of Van Helmont's key ideas by English natural philosophers, but have limited their research to the history of science.⁴¹ Questions related to Van Helmont's language and its reception and transformation by its editors and translators have remained secondary. However, one of the interesting aspects of Van Helmont's work – and perhaps one less obvious to those unfamiliar with Dutch – is his innovative use of language. Moreover, in my opinion, the study of translation as an intrinsic part of the exchange of knowledge in the early modern period should become a more integral part of the history of science. Accordingly, this study presents Van Helmont not primarily as an innovator in chemical medicine, but rather as a useful case study for the role of translation in early modern scientific exchange.

conjunge, tuae curae nunc illa committo omnia ad arbitrium tuum peragito. Omnipotenti Domino ita placuit, qui omnia fortiter aggreditur, omniaque benigne dirigit.”

³⁹ Van Helmont, *Aufgang*, tr. by Knorr von Rosenroth, sig.)(iii^v: ‘Es sey zwar sein Herr Vater anfänglich Willens gewesen / das ganze Werck in Niederländische Sprach zu schreiben; daran er auch schon ein grosses Theil verfertigt / und zwar unter einer auch Niederländischen Vorrede. Weil er aber befunden / daß er nothwendig viel neue und denen Niederländern ungewöhnliche Redens-Arten darinnen gebrauchen müste / so habe Er selbigs Niederländische Tractätlein / dem er sonst den Namen von der Morgenröthe gegeben / und es in seiner Mutter-Sprache Dageraet genennet / seiner Tochter geschencket; von welcher es ein guter Freund entlehnet / und gleich so bald in den Druck befördert; weil aber zu dem Lateinischen Werck sein Herr Vater keine Vorrede machen können / so habe Er / der Sohn / nach des Vaters Tode / bey dessen Herausgebung selbige Niederländische Vorrede vor anfügen lassen.’

⁴⁰ Pagel, *Van Helmont*, p. 208.

⁴¹ See the bibliography for an overview of literature on Van Helmont.

In Chapter 1 of this thesis, I shall first introduce a number of main concepts relating to early modern language and science, which will include early modern ideas about the mind and language, translation, and truth. The second half of Chapter 1 will consider how Van Helmont's ideas about language and translation fit into this background. The status of Latin and Dutch as (potential) languages of science will also be addressed.

Chapter 2 will discuss the way in which Van Helmont used the two languages he had at his disposal, Dutch and Latin, by analysing passages from the *Ortus medicinae* and the *Dageraad*. I shall examine some of Van Helmont's characteristic terminology, such as *gas*, *blas*, and *archeus*. The first two of these are neologisms but would eventually find a place in early modern language in general. They are contrasted with terminology used in the broader topics of plague and alchemy, which at this stage already possessed a (slightly) longer tradition in Latin and in vernacular languages. This comparison will shed light on Van Helmont's use of the vernacular and Latin in order to communicate his ideas to his imagined audience.

Chapter 3 is pivotal, as it examines how the history of the successive editions of Van Helmont's works was intertwined with the publication of translations in various European languages. It is well known that Van Helmont's son, Francis Mercury (1614-1698), brought his father's unpublished papers to the publishing house of Elsevier in Amsterdam after his father's death. The first publication of the *Ortus medicinae* in 1648 would be succeeded by another six editions over the next sixty years, with the seventh and last published in Frankfurt in 1707. During the research for this chapter it became clear to me that the connection between Francis Mercury van Helmont and the appearance of new editions and translations was much closer than hitherto had been believed. This chapter, therefore, will reconstruct the role of Francis Mercury in the dissemination of his father's ideas, through piecing together Francis Mercury's life and travels. This chapter will also introduce all the translations of Van Helmont's works, with special attention to the translators and to the historical context in which they interacted with Helmontian materials.

Chapters 4 and 5 deal with ways in which knowledge is exchanged through translation. How was Van Helmont's work received by the translators, and how did they transform Van Helmont's texts into their own languages? Van Helmont's own awareness of language and translation gave the translators the opportunity to comment upon their own activities and at the same time tailor Van Helmont to suit their own interests. The Helmontian material is divided over two chapters which mirror the first two of the thesis. Chapter 4 will discuss how Van Helmont's translators perceived language, by examining their introductions as well as the way in which they translated the theoretical background of Van Helmont's ideas on language. The philosophy of the mind and the use of logic are central to this discussion, and it will become clear that the terminology used in these disciplines was based on a very old Latin tradition. This

fact presented the translators with an easy task, for, although they had to make a transition to the vernacular, most concepts and terminology were already known to their readers, and the European vernacular languages I am discussing had already an established vocabulary in their respective fields of study.

By contrast, the topics examined in Chapter 5 (such as chemistry and Paracelsian medicine), which refer back to Chapter 2, did not have such a longstanding tradition. Van Helmont's neologisms needed to be translated into English, French, and German, and often required conceptual explanations in these languages. How did the translators deal with these problems? When it comes to practical information, such as recipes and experiments, there seems to have been a move away from Latin towards the respective vernaculars as the dominant languages in the discussion of these topics. This shift was at least partly encouraged by the vernacular environment in which this kind of practical information was generated. The last chapter, therefore, looks for differences in the way in which translators deal with practical information, and this involves examining the relationship between the new terminology of Van Helmont and Paracelsus and the vernacular vocabulary of experiments. As we shall see, the preference for either Latin or one of the vernaculars alternates depending upon the context, and this pattern of switching back and forth is reflected in the texts produced by early modern translators. The different ways in which the translators rendered Van Helmont's texts will then lead us to the final conclusions, addressing Van Helmont's reception through translation and connecting it to broader issues of translation in early modern science.

CHAPTER 1: Language and Science

Sed verba plane vim faciunt intellectui, et omnia turbant.

Francis Bacon¹

The Latin used in Europe in the Middle Ages and early modern period was a learned language acquired through reading and writing rather than speaking.² In contrast to this learned language, the vernacular languages were spoken languages, which one would learn while growing up, literally as a mother tongue. As I already mentioned in the Introduction, Guy Deutscher asked and discussed the question whether our mother tongue influences our way of thinking. In this chapter we shall explore the same question and its answers among scholars in the seventeenth century, with special attention to the answers formulated by Jan Baptista van Helmont. However, in asking this question of seventeenth-century sources and in understanding the answers they propose, we need to examine the way in which seventeenth-century scholars thought about language. In relation to the question of language we shall look at how a seventeenth-century scholar thought ideas are conceived – how ideas come to one’s mind and how they can be put into words. As we shall see in the course of this chapter, language and the conception of ideas are directly connected to translation and, furthermore, to the notion of ‘truth’. The notion of truth and whether language is able to reflect or communicate truth inevitably has consequences for the use of language in science, which will be discussed below. This chapter does not directly grapple with the persistence of Latin in science, or the shift from Latin as the learned language towards the vernacular, but rather examines the implications of this shift and its consequences on the notion of translation of content and the validity of texts. However, this also means that we need to have an understanding of the status of vernacular languages in their ability to provide the necessary grammar and vocabulary to verbalize science in comparison to Latin. And because Van Helmont’s mother tongue was Dutch, the seventeenth-century reception of Dutch as a language for science will serve as an example of vernacular languages in this chapter. Before we enter the realm of Van Helmont’s thought on language, I shall introduce five main concepts central to this thesis.

¹ Francis Bacon, *Novum organum* (I, 43), in *The Instauration Magna Part II: Novum Organum and Associated Texts*, ed. by Graham Rees, with Maria Wakely, Oxford 2004, p. 80: ‘It is clear that words harm the intellect, and they disturb everything.’

² Franz H. Bäuml, ‘Varieties and Consequences of Medieval Literacy and Illiteracy’, *Speculum* LV (1980), pp. 253-4.

Part I: Five Concepts

Language

What is language and how was it perceived by early modern scholars? Language, as a uniquely human skill for communication, has been the centre of many philosophical debates from the ancient Greeks onwards. Plato was the first to write on the origin and concept of language in *Cratylus*, one of his dialogues.³ One of the main questions investigated by Plato is whether or not the names of things are natural or conventional; in other words, whether the name of an object reflects the nature of that object and is therefore the only possible name for it, or whether the names for objects are arbitrary. Plato discusses both options in the dialogue by giving his characters different opinions, and does not come to a conclusion.⁴ This discussion opened the floor for a much larger debate about the reality that is expressed by language and how knowledge can be defined if the only way we can express it is through language.⁵

It was, however, not so much Plato but rather Aristotle whose ideas had the greatest impact upon medieval and early modern discussions of language. Plato's writings were rediscovered during the fifteenth century.⁶ It was the humanist scholar Marsilio Ficino (1433-1499) who reintroduced Plato to the Latin West with his translations of all of Plato's works from Greek into Latin. The work was published in 1484 in Venice.⁷ E. J. Ashworth separates two central doctrines dominating the early modern discussion on language, namely, 'the doctrine that spoken language is purely conventional and the doctrine that spoken language corresponds to a mental language, which has natural signification.'⁸ Although the first doctrine, based on one passage from Aristotle's *De interpretatione* IV (17a1-2) and further elaborated by medieval logicians, was the best known in the sixteenth and seventeenth centuries, it is the second doctrine that received most attention, due to the rediscovery and Latin translation of Plato's *Cratylus* combined with the biblical studies carried out by humanist scholars.⁹ With the (re-

³ However, he discusses language in other dialogues. Morris Henry Partee, 'Plato's Theory of Language', *Foundations of Language* VIII (1972), pp. 113–32.

⁴ Plato, 'Cratylus', in *Plato with an English Translation*, Vol. 6: Cratylus, Parmenides, Greater Hippias, Lesser Hippias, ed. by H. N. Fowler, Cambridge, MA 1939, pp. 6-191 [Stephanus nrs: Vol. 1, 383a-440e].

⁵ For more on Plato's treatment of language, see: Ori Z. Soltes, *The problem of Plato's Cratylus: The Relation of Language to Truth in the History of Philosophy*, Lewiston 2007; Robbert M. Van den Berg, 'Plato's *Cratylus* and Aristotele's *De Interpretatione*: Setting the Scene', in R. M. Van den Berg, *Proclus' Commentary on the Cratylus in Context: Ancient Theories of Language and Naming*, Leiden 2008, pp. 1-28.

⁶ Brian P. Copenhaver, 'Translation, Terminology and Style in Philosophical Discourse', in *The Cambridge History of Renaissance Philosophy*, ed. by Charles B. Schmitt, Quentin Skinner, Eckhard Kessler and Jill Kraye, Cambridge, New York 1988, p. 79-80 (hereafter *Cam. Hist. of Renaissance Philosophy*).

⁷ For an introduction to Ficino and his translations of Plato, see 'Introduction', in Michael J. B. Allen and Valery Rees, with Martin Davies (eds), *Marsilio Ficino: His Theology, His Philosophy, His Legacy*, Leiden 2002, pp. xiii-xxii; and Copenhaver, 'Translation, Terminology, and Style in Philosophical Discourse', pp. 79-80.

⁸ E. J. Ashworth, 'Traditional logic', in *Cam. Hist. of Renaissance Philosophy*, pp. 155-7.

⁹ Aristotle, *On interpretation*, ed. by Harold P. Cooke and Hugh Tredennick, Cambridge, MA 1938, pp. 120-21: 'ἔστι δὲ λόγος ἅπας μὲν σημαντικός, οὐχ ὡς ὄργανον δέ, ἀλλ' ὡς προεἶρηται, κατὰ συνθήκην.' In

)interpretation of Platonic texts, an alternative to Aristotle presented itself. Philosophers rediscovered Plato's argument that there was in fact a natural meaning in words and that language was therefore not conventional. We shall return to this shortly while discussing language and truth.

The second doctrine described by Ashworth is entirely based on another paragraph of Aristotle's *De interpretatione* I (16a3-8), and relates language to the mind and the origins of language:

Spoken words then are symbols of affections of the soul and written words are symbols of spoken words. And just as written letters are not the same for all humans, neither are spoken words. But what these primarily are signs of, the affections of the soul, are the same for all, as also are those things of which our affections are likenesses.¹⁰

When analysing this paragraph it is possible to distinguish three elements in Aristotle's language theory: affections of the soul, spoken words and written words. The claim is that the affections (πάθηματα) of the soul (ψυχή) are universal, referring to the things (πράγματα) they represent or signify through likenesses (ὁμοιώματα). Hence *pragmata* are the realities expressed as *pathemata* with the help of likenesses. Aristotle presents the term *pragma* here as 'the actually existing object, event, or situation that a word, a sentence or a belief refers to or describes', as Deborah Modrak explains very clearly in her book on Aristotle's theory of language.¹¹ A spoken or written word (the second and third elements), on the other hand, should be seen as a sign or token (συμβολον) of these affections. There is also a clear hierarchy between spoken and written word, as the spoken word (better defined as sound) is a sign of the affection, and the written word is a sign of the spoken word.¹² These last two relations are of conventional nature according to Aristotle. This indicates that the spoken word is an utterance of mental thought, which will be discussed in the following paragraph on the mind. The fact that Aristotle says that 'just as written letters are not the same for all humans, neither are spoken words', is important to understand that Aristotle is trying to reconcile the two extremes of conventionalism and naturalism as discussed by Plato. What Aristotle says, as a partial solution to Plato's dilemma, is actually twofold: there is a natural connection between the signs of the affections of the soul

translation: 'But while every sentence has meaning, though not as an instrument of nature, but as we observed, by convention, not all can be called propositions.'

¹⁰ Ibid., p. 114: "Ἔστι μὲν οὖν τὰ ἐν τῇ φωνῇ τῶν ἐν τῇ ψυχῇ παθημάτων σύμβολα, καὶ τὰ γραφόμενα τῶν ἐν τῇ φωνῇ. καὶ ὥσπερ οὐδὲ γράμματα πᾶσι τὰ αὐτά, οὐδὲ φωναὶ αἱ αὐταί· ὧν μέντοι ταῦτα σημεῖα πρῶτων, ταῦτά πᾶσι πα-

θήματα τῆς ψυχῆς, καὶ ὧν ταῦτα ὁμοιώματα πράγματα ἤδη ταῦτά.' Translation by Deborah K. W. Modrak, *Aristotle's Theory of Language and Meaning*, Cambridge 2001, p. 1.

¹¹ Ibid., pp. 19-27.

¹² For the word as sound, see Walter J. Ong, *Orality and Literacy: The Technology of the Word*, London 1982, pp. 31-3.

and the spoken word, and there is a conventional relation between spoken and written languages.¹³

Aristotelian views on language, further elaborated in light of the revival of Platonic ideas of language, lay the groundwork for discussions on language during the sixteenth and seventeenth centuries. There was, however, no discipline specifically dedicated to language, as for example linguistics nowadays. Language was examined by early modern scholars through the prism of other disciplines, such as grammar, rhetoric, law, natural philosophy, theology and medicine, to name but a few.¹⁴ Scholars involved in these subjects had received their education entirely in Latin, with a constant reference to the topics of the seven liberal arts. This meant that they spent their formative years studying rhetoric, logic and grammar. Therefore, working with language and discussing language lay at the centre of their intellectual lives. In the seventeenth century, debates about language were especially lively. Disputes were inherited from the sixteenth century, which pitted the vernacular language against Latin and which asked about their relative values. Stirred by the Reformation and attentive to the increasing use of vernacular Bibles, scholars investigated the extent to which vernacular languages could be used and their applications for science, as we shall see in the second part of this chapter. In the seventeenth century, the debate moved away from the questions of legitimacy in using the vernaculars to more pragmatic questions about how they might achieve a clarity and comprehensibility equivalent to that of Latin.¹⁵ The views on language elaborated by Jan Baptista van Helmont and his son Francis Mercury, although very different, need to be read against the backdrop of these debates.¹⁶ In keeping with the way in which language was not addressed directly as a distinct phenomenon but only perceived in the context created by other discourses, this thesis will not seek to distil language and the use of language from such contexts, but rather to discuss language as it was embedded within Jan Baptista van Helmont's various fields of interest.

The Human Mind

Since the word, spoken or written, is derived from the affections or impressions of the soul, it is necessary to investigate the early modern understanding of the soul. This was also largely based upon Aristotle, and in particular his *De anima* ('On the Soul') and *Parva naturalia* ('Short Treatises

¹³ Modrak, *Aristotle's Theory of Language and Meaning*, p. 50.

¹⁴ Rhodri Lewis, *Language, Mind and Nature: Artificial Languages in England from Bacon to Locke*, Cambridge 2007, p. 9.

¹⁵ Lewis, *Language, Mind and Nature*, pp. 6-22.

¹⁶ On Francis Mercury van Helmont and his ideas about language, see Francis Mercury van Helmont, *The Alphabet of Nature*, ed. by Taylor Corse and Allison P. Coudert, Leiden, Boston 2007; and Allison P. Coudert, 'Some Theories of a Natural Language from the Renaissance to the Seventeenth Century', in *Magia Naturalis und die Entstehung der Modernen Naturwissenschaften*, ed. by Albert Heinekamp and Dieter Mettler, Wiesbaden 1978, pp. 56-114.

on Nature³). These works give a description of the different parts of the soul. The Aristotelian theory of the soul as used during the early modern period was heavily amended by the Greek, Latin and Arabic commentaries that were written during the Middle Ages. The translations of these commentaries and the rediscovery and new translations of Aristotle's texts formed the basic material for the early modern debate on the soul.¹⁷ In the final part of this chapter we shall see that Van Helmont has theories about language and the role of the soul in mediating between *pragma* or reality, on the one hand, and the words of a language on the other. These theories deviated from the Aristotelian tradition.

To give the necessary overview of Aristotelian theory of the soul, I borrow a diagram from Katharine Park's chapter 'The Organic Soul', which is, in my opinion, truly helpful to understand these complicated concepts (Fig. 1).¹⁸ Aristotle's theory of the soul is based on a tripartite division connected to the three forms of life on earth: vegetative, animal and human. The vegetative soul, the lowest in the hierarchy, provides all living creatures with the functions of nutrition, growth and reproduction. The sensitive soul, present in all animals, adds to the functions of the vegetative soul those of movement (including emotions) perception (external and internal senses). The intellectual soul, which animates only humans, contained all functions of the vegetative and sensitive soul and additionally the three rational powers of the intellect, will and intellectual memory (in contrast to memory as part of the internal senses). The vegetative and sensitive faculties of the human soul were physically situated within the human body, which of course had direct implications for the whole medical system of the time. The vegetative powers were located in the liver, the emotive powers of the sensitive soul were located in the heart, while voluntary motion in five internal senses (cogitation, memory, fantasy, imagination and common sense) dwelt in the brain. The external senses (vision, hearing, smell, taste and touch) were naturally connected to the representative organs. The physiological connection between these organs was conceived as some sort of vapour, called *spiritus*.¹⁹

¹⁷ For an overview of translations and influences on Aristotelian theory of the mind during the late Middle Ages and Renaissance, see Katharine Park and Eckhard Kessler, 'The Concept of Psychology', in *Cam. Hist. of Renaissance Philosophy*, pp. 455-63.

¹⁸ This section is based on Katharine Park's article 'The Organic Soul', in *Cam. Hist. of Renaissance Philosophy*, pp. 464-84. See also Eckhard Kessler, 'The Intellectual Soul', in the same volume, pp. 485-534; and Ian Maclean, 'Language in the Mind: Reflexive Thinking in the late Renaissance', in *Philosophy in the Sixteenth and Seventeenth Centuries: Conversations with Aristotle*, ed. by Constance Blackwell and Sachiko Kusukawa, Aldershot 1999, pp. 296-321.

¹⁹ Park, 'The Organic Soul', in *Cam. Hist. of Renaissance Philosophy*, p. 469.

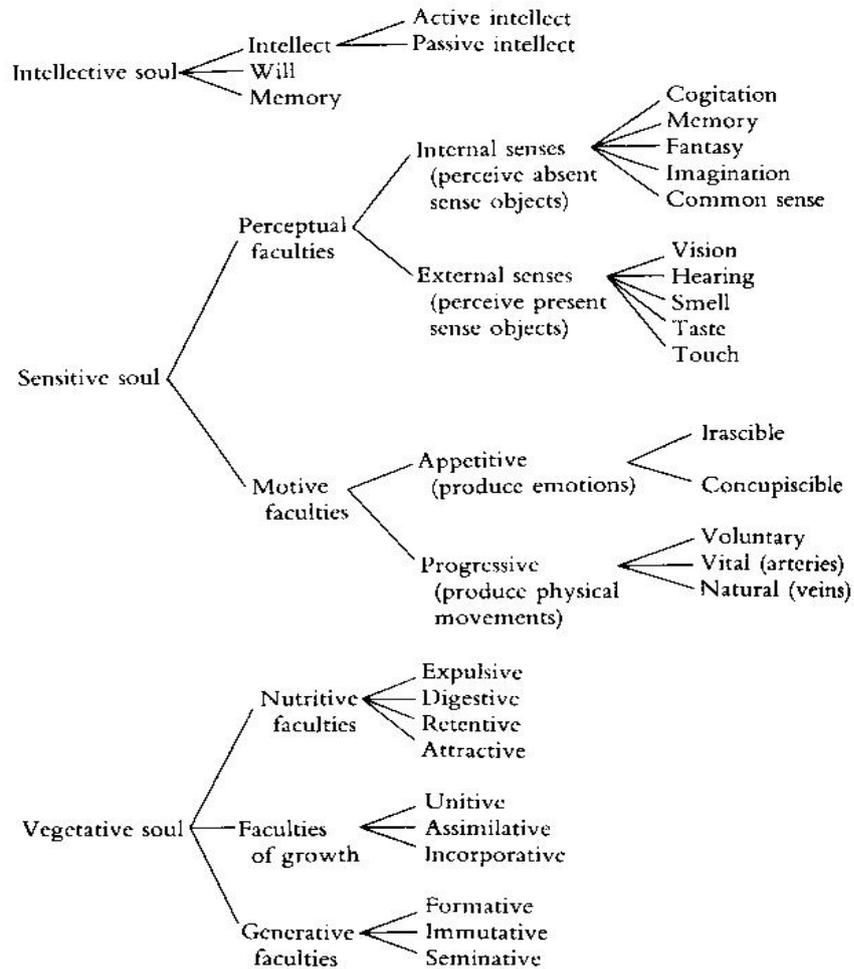


Figure 1 The division of the souls

Figure 1: The division of the souls, from Katharine Park, 'The Organic Soul', in *Cam. Hist. of Renaissance Philosophy*, p. 466.

The internal senses were located in the three ventricles of the brain; common sense and imagination in the front ventricle. Common sense is where the information or data from the exterior senses was collected, 'described as similitudes or images'.²⁰ Park further states that 'imagination stored these data before passing them on to fantasy which acted to combine and divide, yielding new images, called *phantasmata*, with no counterparts in external reality. Estimation accounted for instinctive reactions of avoidance or trust, while memory, finally,

²⁰ Ibid., p. 471.

stored not only the images derived from the external sense but also the *phantasmata* and the reactions of estimation'.²¹

All these aforementioned faculties of the sensitive soul were material and consequently mortal, whereas the intellective soul was immaterial and therefore immortal.²² How did the sensitive soul communicate with the intellective soul and vice versa? Somehow the immortal parts had to make contact with the mortal parts. This question stimulated much debate amongst philosophers, and also amongst theologians, as the immortal soul represented the closest likeness of God.²³

Of the three faculties of the rational soul, the intellect was divided into two 'moods', the *intellectus agens* (the active intellect) and the *intellectus possibilis* (the passive intellect).²⁴ The *intellectus agens* was seen as the purest form of intelligence in humans. Some scholars saw it as the divine cause, which could then also be part of a universal (Neoplatonic) soul.²⁵ The main connection between the cognitive soul and the rational soul were the *phantasmata*, produced by the imagination. These *phantasmata* would be impressed on the *intellectus agens* to consequently move the *intellectus possibilis* to cognition.²⁶

The way language related to the Aristotelian mind was hardly discussed in *De anima*, but received ampler treatment in *De interpretatione*.²⁷ Aristotle's concept of words and sentences can be interpreted as '*phantasmata* [images] employed by the language user to represent a *logos* [meaning]'.²⁸ This means that language, produced by the cognitive part of the soul after the images were formed in the *phantasia* [imagination], is a likeness of reality. Hence, according to Aristotle language is formed in the sensory faculty of the soul. Inevitably, this could raise questions about the reliability of language, and therefore the truths human beings were able to communicate through language.

Truth & Reality

Let us consider a contemporary of Van Helmont, Francis Bacon (1561-1626), and the way in which he described the connection between the human mind and reality. In his *Novum organum*, published in 1620 as a response to Aristotle's *Organon*, he described a new method of logic. Language was a key element in his reform of knowledge:

²¹ Ibid.

²² Maclean, 'Language in the Mind', p. 302.

²³ See Kessler, 'The Intellective Soul', as in fn. 18.

²⁴ Maclean, 'Language in the Mind', p. 303.

²⁵ See for example, on Francesco Piccolomini, Kessler, 'The Intellective Soul', pp. 527-30.

²⁶ See Kessler on Marcantonio Genua and Jacopo Zabarella, 'The Intellective Soul', pp. 523-27, 530-34.

²⁷ See Modrak, *Aristotle's Theory of Language and Meaning*, Ch. 7 ('*Phantasia* and Representation'), pp. 219-43.

²⁸ Modrak, *Aristotle's Theory of Language and Meaning*, p. 265-68.

There are also *Idols*, derived as if from the mutual agreement and association of the human race, which I call *Idols of the Market* on account on men's commerce and partnerships. For men associate through conversation, but words are applied according to the capacity of ordinary people. Therefore shoddy and inept application of words lays siege to the intellect in wondrous ways. Nor do the definitions and explanations with which learned men have in some cases grown used to sheltering and defending themselves put things right in any way. Instead words clearly force themselves on the intellect, throw everything into turmoil, and side-track men into empty disputes, countless controversies and complete fictions.²⁹

Here Bacon is acknowledging the fact that language is the way humans communicate, but also that words themselves nebulise the understanding of reality. This effect is caused by Bacon's idea that 'words represent the reality of the mind, not the reality of nature'.³⁰ Therefore, to describe reality with the only tool mankind has, i.e. language, needs constant awareness and philosophical investigation into the use of words. Bacon is nevertheless convinced that people can perceive truth and reality. He solves this apparent paradox by developing a method of thinking in which the human mind distances itself from the images it produces in the mind towards the faculties of nature.³¹ This is in the end not so different from Aristotle's concepts of language and meaning following Modrak's interpretation. 'Meanings are grounded in the world because the mental states, which are the vehicles for meanings, resemble extra-mental objects. With meanings firmly anchored in the world, language can serve as the means for expressing truths'.³² Aristotle also emphasized the fact that meanings and realities had to be rooted in nature (in contrast to the mind) to be able to express the truth.

It is not hard to imagine that a discussion about knowledge, truth and the reality of language resonated among scholars working within a culture whose religious traditions were based on worshipping the Word. The Gospel of John (1:1) opens significantly with: 'In the beginning was the Word, and the Word was with God, and the Word was God'. This sentence emphasises the power of words and its direct relationship to the divine. It is preceded in the Old Testament by a verse in Genesis (2:19) where Adam is given the power of the word to name all the animals God just created. This can be connected with Plato's examination of the natural or arbitrary nature of words and names, and was often dealt with in connection with each other. What is

²⁹ Francis Bacon, *Novum organum* (I, 43), p. 80: 'Sunt etiam *Idola* tanquam ex contractu et societate humani generis ad invicem, quae *Idola Fori* propter hominum commercium, et consortium, appellamus. Homines enim per sermones sociantur; At verba ex captu vulgi imponuntur. Itaque mala et inepta verborum, impositio, miris modis intellectum obsidet. Neque definitiones aut explicationes, quibus homines docti se munire et vindicare in nonnullis consueverunt, rem ullo modo restituunt. Sed verba plane vim faciunt intellectui, et omnia turbant; et homines ad inanes, et innumeras Controversias, et commenta deducunt.'

³⁰ Guido Giglioli, 'Francis Bacon', in *The Oxford Handbook of British Philosophy of the Seventeenth Century*, ed. by Peter R. Anstey, Oxford 2013, p. 63.

³¹ *Ibid.*, pp. 64-5; and Francis Bacon, *The Advancement of Learning*, ed. by Michael Kiernan, Oxford 2000.

³² Modrak, *Aristotle's Theory of Language and Meaning*, p. 51.

more, Adam and Eve's Fall from Paradise was believed to have had major consequences also on the level of language. It was assumed that the language spoken in Paradise was lost after the Fall. This sense of loss gave impetus to the early modern search for the universal or Adamic language.³³ This idea of a language representing reality or a language derivative of the true language spoken in Paradise was heavily debated not only in theological milieus, but also in the context of natural historical, medical and other scientific discussions. A conventional idea in the sixteenth and seventeenth century is namely that God left humankind with two 'books', that of the Bible and that of Nature.³⁴ The study of both books could reveal (divine) knowledge, seen as the most desirable finding. But if the Word of God was no longer similar to the pre-lapsarian Word of God, or if words obscured our perception of reality, as intimated by Bacon, how could then the Book of Nature be described with a language that was not an accurate tool? The problem of reading the Book of Nature had a scope extending far beyond the potential unreliability of language. It impinged, for example, on the question of the reliability of sense perception.³⁵ Our focus, however, is on the linguistic problems.

In the seventeenth century, the Adamic language, as it had been given to man in Paradise, was believed to have been lost either at the Fall or, if not yet then, certainly after the episode of the Tower of Babel (Genesis 11), where the peoples of the world were punished with the confusion of tongues for their desire to reach the heavens. Nevertheless, the belief that there once had been an Adamic or universal language, potentially very close to the language of God himself, sustained the search for this language throughout the Middle Ages and the early modern period.³⁶ The discussion about a universal language peaked during the seventeenth century, at a time when scientific developments and the 'reading of the book of nature' were advancing with great speed.³⁷

The search for the original language was not only related to the question of truth and language. Since there was no agreement about what such a language was supposed to be, seventeenth-century scholars were only able to use the available languages to record and communicate the results of their scientific inquiries. This point was related to general questions such as: 'How do we perceive reality?' and 'How can reality be expressed while using the restrictive terms of

³³ James J. Bono, *The Word of God and the Languages of Man: Interpreting Nature in Early Modern Science and Medicine*, Madison, London 1995, Ch. 3 ("The 'Word of God' and the 'Languages of Man'"), pp. 48-84. Bono discusses different theories about the loss of the Adamic language either after the Fall or after the Tower of Babel, on pp. 60-4.

³⁴ On seventeenth-century discussions on the Book of Nature and the relationship with the Bible, see Eric Jorink, *Het 'Boeck der Natuer': Nederlandse geleerden en de wonderen van Gods Schepping, 1575-1715*, Leiden 2007, pp. 30-43, 95-113.

³⁵ On delusion of sense perception, see: Stuart Clark, *Vanities of the Eye: Vision in Early Modern European Culture*, Oxford 2007; and Peter Harrison, *The Fall of Man and the Foundations of Science*, Cambridge 2007.

³⁶ Umberto Eco, *The Search for the Perfect Language*, Oxford 1994.

³⁷ *Ibid.*, Ch. 5 ("The Monogenetic Hypothesis and the Mother 'Tongues'"), pp. 73-116; Jorink, *Het Boeck der Natuer*, pp. 38-43.

language?'. It was also linked with early modern views about the human mind, how the senses could perceive reality, how the mind could come up with ideas and how these were related to others by using language. A prominent connection for early modern scholars between science and language was logic, one of the already mentioned seven liberal arts, taught at a pre-university level as part of the *trivium* (the other two being grammar and rhetoric). These three disciplines formed the basis of every school boy's education, and were commonly taught in Latin. Logic covered the topic of reasoning and therefore was the way an educated man would bring across a point to someone else. From a philosophical point of view, this could raise the question of where (i.e., in which part of the mind) reasoning was deemed to take place, although the English verb 'to reason' makes it all too clear. A key issue was whether reason is part of the animal or intellective soul.³⁸ If reason was located in the animal soul (as Van Helmont argued in one of the treatises included in the *Ortus medicinae*), it did not necessarily convey a truth, but rather something that was irreparably corrupted by the material part of the human soul. In Van Helmont's philosophy of knowledge, therefore, logic was seen as a useless activity, as he pointed out in 'Logica inutilis':

No doubt, logic does not discover middle terms that are necessary to eat, to have, to do or to know anything, but only to express in a more compendious way some hypothesis; and so it comes up with well-arranged brawls to fight even against the truth.³⁹

In typical Helmontian fashion, his view implies a radical opposition to the entire contemporary educational system and a subversion of the ancient authorities all at the same time. He is arguing here that logic only produces opinions (*putatio*) that have little or nothing to do with true knowledge. The verb *invenire* (to invent, to find, to discover) that Van Helmont is using, refers to the rhetorical term *inventio*, which forms the first step in the rhetorical process of forming an idea or argument.⁴⁰ Logical invention, according to Van Helmont, can only reformulate the knowledge already present in the mind, which therefore is never new knowledge. Knowledge or wisdom (*scientia*) can only be obtained from the Son of the everlasting Father of Lights, by praying, searching and knocking - a biblical reference to Matthew 7:7.⁴¹ Fortunately for us, Van Helmont also includes a worldlier example in which knowledge is said to be obtained via the mediation of teachers. This will be discussed in the section on science.

³⁸ E. J. Ashworth, *Language and Logic in the Post-Medieval Period*, Dordrecht 1974, pp. 32-5.

³⁹ Jan Baptista van Helmont, 'Logica inutilis', in *Ortus medicinae*, § 20, pp. 42-3: 'At sane Logica non invenit media ad essendum, habendum, faciendum aut sciendum: sed duntaxat, ad compendiosius ostendendum putationem aliquam: adeoque ad oppugnandum etiam veritatem, rixas compositas invenit.'

⁴⁰ For an introduction to Renaissance rhetoric, see for example Peter Mack, *Elizabethan Rhetoric: Theory and Practice*, Cambridge 2002, pp. 1-47.

⁴¹ Van Helmont, 'Logica inutilis', in *Ortus medicinae*, § 24, pp. 43: 'Scientias autem, sola dat sapientia, filius sempiterni Patris luminum. Media autem acquirendi scientias, sunt duntaxat orare, quaerere, et pulsare.'

Translation

Before turning to the topic of science, a little more needs to be said on the validity of language as a medium of truth, ideas that were common at the time about translating texts and the truth-value of translations. Our starting point is the observation that Latin was seen as the language of science throughout the Middle Ages and into the early modern period. It was perceived as having a superior status over other languages, a claim that could be substantiated with appeals to its provenance. What implications did this have for the status of Latin texts when they were translated? The paradigmatic example for these questions about the validity of translations can be found in the Bible. The enormous impact which the Bible has had on language can be appreciated in the many idiomatic sentences which have the Bible as their source, such as ‘an eye for an eye’, or ‘to go through the eye of a needle’. Humanist education with its focus on text criticism had an influence on the reception of the Bible text, and theological discussions revolved around translations of the Bible and especially the (mis-)interpretations that accompanied this practice.⁴² The linguistic history of the Bible is complicated, partly because it had been orally transmitted before it was written down, and secondly, because it was written down in several languages. The Old Testament of the Bible was originally written in Hebrew – which during the seventeenth century was often considered the first original, or Adamic language.⁴³ In the second century BCE, this text was translated into Greek – by 70 or 72 scholars according to legend, and therefore called *septuagint* – and was given the status of authenticity, just like the Hebrew version. Most of the later translations, including the range of Latin translations, have been subjected to criticism on linguistic ground; not only is the language not original, but at certain points it deviates from the original meaning. After the Reformation we see an increase in vernacular versions of the Bible, which were most commonly derived from the Vulgate, the Latin translation prepared by St. Jerome in the fourth century CE. At the same time, the emphasis that humanists lay on the textual primacy of the ‘first’ or ‘original’ version of a text, compelled them to refer back to the ‘original’ text in Hebrew, Greek and Latin every time they engaged in biblical exegesis. Translations were seen as less trustworthy, as the process of turning a text into different linguistic forms could not capture all the subtleties of the original. Furthermore, the status of the translator was seen as very different from that of an author, something that becomes strikingly clear when account is taken of the amount of anonymous translations of the early modern period. We can extend the argument about the higher status of original texts and language also to non-biblical texts, as shown by Theo

⁴² See for Erasmus and his translations of the New Testament, Paul Botley, *Latin Translation in the Renaissance*, Cambridge 2004, esp. Ch. 3 (‘Erasmus and the New Testament’), pp. 115-63; and John L. Flood, ‘Martin Luther’s Bible Translation in Its German and European Context’, in *The Bible in the Renaissance. Essays on Biblical Commentary and Translation in the Fifteenth and Sixteenth Centuries*, ed. by Richard Griffiths, Aldershot 2001, pp. 45-70.

⁴³ A few parts of the Hebrew Bible, such as sections in the book of Daniel and the book of Ezra, had been written in Aramaic.

Hermans in his study on the translation discourse in the early modern Netherlands.⁴⁴ Drawing upon passages from early modern Dutch texts on translation, Hermans has been able to demonstrate the lowly, second-rate status of the translator.

Scientific texts are also exposed to the same risks of corruption as a result of translation. Van Helmont had very clear ideas about the translation of thoughts, saying that ‘it is unnatural and strange for the human mind to translate one’s first intellectual concept, which is rendered in the mind in words in one’s mother tongue, once again into another language, outside one’s common practice’.⁴⁵ We shall analyse this idea in greater detail in the second half of this chapter. I mention this here to indicate how early modern translators were highly attuned to the complexities involved in transferring something from one language into another. Van Helmont had very sophisticated views about translation, both in theory and in practice, for he tested his own ideas while translating himself. Since one’s first intellectual concept (*sijns eerste begrijps inval*) is an idea ‘that comes to mind’ and not so much a text one reads and then translates, Van Helmont is speaking about his own practice of writing in his mother tongue and translating it into Latin.⁴⁶ The author’s own ability to write in several languages could be described as multilingualism, a very common quality among early modern scholars, but his discussions about the translational step between mother tongue and other languages, makes clear that Van Helmont perceived a difference in the ease with which he was able to use his languages.⁴⁷

The Renaissance was a period in which translation was part and parcel of scholarly practice. Many classical Greek texts found their way into the Latin West, many through Arabic translations, which were then translated into Latin, others straight from the Greek.⁴⁸ Humanist scholarship distinguished itself from its medieval precedents both by its avid search for original classical texts, and by the increased rate with which texts in other languages (e.g. Greek, Arabic) were translated into Latin.⁴⁹ Inevitably, Renaissance men of letters came up with translation theories which would inform the practice of translation into the seventeenth century, even though the focus would change; whereas originally it was directed at the translation of classical texts into Latin, by the late sixteenth century interest shifted to the process of translating into

⁴⁴ Theo Hermans, ‘Introduction’, in *Door eenen engen bals: Nederlandse beschouwingen over vertalen 1550-1670*, ed. by T. Hermans, The Hague 1996, pp. 11-2. On language and status, see also Isabelle Pantin, ‘The Role of Translation in European Scientific Exchange’, in *Cultural Translation in Early Modern Europe*, ed. by Peter Burke and R. Po-chia Hsia, Cambridge 2007, pp. 168-70.

⁴⁵ Jan Baptista van Helmont, ‘Den onuytspreekelijcken naeme’, in *Dageraad*, sig. **v: ‘is ’t oneygen en vreemt aen de ziele, sijn eerste begrijps inval, in ’t gemoedt verbeelt zijnde, tot woorden in zijn moeders taele, wederom over te stellen, buyten zijn ingelijfde gewoonte, in een andere spraeck.’

⁴⁶ More on Van Helmont’s practice of self-translation in Chapter 2.

⁴⁷ On multilingualism in the early modern period, see Christiane Maaß, ‘Mehrsprachigkeit – Sprachbewusstsein in der Renaissance zwischen Ideal und textueller Praxis’, in *Mehrsprachigkeit in der Renaissance*, ed. by Christiane Maaß and Annett Volmer, Heidelberg 2005, pp. 7-15.

⁴⁸ Charles Burnett, ‘Translation from Arabic into Latin in the Middle Ages’, in *Übersetzung*, II, pp. 1231-37; and *ibid.*, ‘Aristotle in Translation in Medieval Europe’, in *Übersetzung*, II, pp. 1308-10.

⁴⁹ Copenhaver, ‘Translation, Terminology, and Style in Philosophical Discourse’, pp. 77-86.

the vernacular. However, Peter Burke has shown that even at later stages translation from the vernacular into Latin should not be discounted; an example is provided by Van Helmont's own practice of writing in Dutch before writing in Latin.⁵⁰ The two main methods for translation were word-for-word (*ad verbum*) or translating by meaning (*ad sensum*), and according to Brian Copenhaver there are four more 'choices for the locus of correspondence in translation', that is, language, structure, content and style.⁵¹ We see the choice between word and meaning discussed in texts on translation – translating word-by-word was supposed to give the most honest image of the original, but at the same time it caused insurmountable problems of readability, whereas translating by meaning (with paraphrasing as the most extreme form) delivered a text far removed from the original.⁵² A middle path was hard to justify on a theoretical level, yet represented the common practice.

As just mentioned, translation in the early modern period occurred largely from Latin into the vernacular languages. But it also took place in the opposite direction, i.e., from the vernacular into Latin; it was furthermore practised between vernaculars. This also applies to scientific texts. Isabelle Pantin argues convincingly that translating a text induced a change in the perception of the work as a result of two factors: 'the new public and the prestige associated with a change in the status of the work'.⁵³ In the second half of my thesis I shall look at the ramifications which ensued when Van Helmont's works were translated. I will pay attention to the change of audiences, but also to the role and practice of the translators themselves. The translators' practice is often ignored, partly because of the lesser status that translations have with respect to their originals, and partly due to the specific focus on the history of translation theory.⁵⁴ Despite this difference in status of the text, however, translators had to make numerous decisions when they were fulfilling his task. In doing so, they exercised a major impact on the text itself and furthermore upon the manner in which the text was received in its new setting. Therefore, translations as well as their translators represent an integral part in this study of the reception of Van Helmont's works.⁵⁵

⁵⁰ Peter Burke, 'Translations into Latin in Early Modern Europe', in *Cultural Translation in Early Modern Europe*, ed. by Burke and Hsia, pp. 65-80.

⁵¹ Copenhaver, 'Translation, Terminology, and Style in Philosophical Discourse', p. 77 & 87; Burke, 'Cultures of Translation in Early Modern Europe', in *Cultural Translation in Early Modern Europe*, ed. by Burke and Hsia, pp. 24-35.

⁵² For an overview of translation theories in the Renaissance, see: Theo Hermans, 'Concepts and Theories of Translation in the European Renaissance', in *Übersetzung*, II, pp. 1420-28; Botley, *Latin Translation in the Renaissance*.

⁵³ Pantin, 'The Role of Translation in European Scientific Exchange', pp. 167.

⁵⁴ Belén Bistué, *Collaborative Translation and Multi-Version Texts in Early Modern Europe*, Farnham 2013, 11-12.

⁵⁵ Lawrence Venuti, *The Translator's Invisibility: A History of Translation*, London 1995.

Science

Let us now turn to the relationship between language and science. The word science has its origin in the Latin word *scientia*, meaning ‘knowledge’ or ‘wisdom’. Both the word *scientia* and the verb *scio* (for ‘to know’) are often used in the texts which form the centre of our discussion in the next chapters. In the early modern period, ‘science’ was understood as the theoretical knowledge which could be acquired from books, proved by logic and characterized by certainty or truth.⁵⁶ Practical knowledge, acquired by experience, was not considered part of *scientia*, in contrast to our contemporary common perception. The term ‘scientist’, meaning someone conducting scientific research, came into use only in the nineteenth century.⁵⁷ During the sixteenth and seventeenth centuries a major shift occurred in the acceptance of knowledge acquisition through the active process of observing, recording and experimenting. In her book on artisanal knowledge, Pamela Smith argues that the interests of early modern individuals in the practice of ‘science’ are an important and under-studied part of the history of science, in contrast to the study of the theoretical changes taking place during this period.⁵⁸ The current interest of historians of science in the practice of science emerged in the last decade of the twentieth century and has been directed at how science was practised, by whom it was practised and how it circulated in written form or as objects.⁵⁹ The present thesis investigates similar issues, while examining the translation of scientific texts as a practice of generating and spreading knowledge. The point of departure for Van Helmont was bookish *scientia*, which in his view was not the trustworthy and universal truth in which he had been encouraged to believe during his years of schooling in the ancient authorities. On the contrary, Van Helmont, following in the footsteps of Paracelsus, argued that knowledge came to man via divine inspiration, and by collecting experiences.⁶⁰ With these arguments, Van Helmont aligned himself with a new form of science, conceived as an activity performed by theory-educated early

⁵⁶ Steven Shapin, *The Scientific Revolution*, Chicago 1996, pp. 5-6; Pamela H. Smith, *The Business of Alchemy: Science and Culture in the Holy Roman Empire*, Princeton 1994, pp. 45-50.

⁵⁷ *Oxford English Dictionary Online*, s. v. ‘Scientist’, Oxford 2014. Last accessed 28 March 2014 (hereafter OED). For a recent and thorough introduction to science language and translation, see: *Translating Knowledge in the Early Modern Low Countries*, ed. by Harold J. Cook and Sven Dupré, Berlin 2013.

⁵⁸ Pamela H. Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution*, Chicago 2004, pp. 17-20.

⁵⁹ See, for example, Peter Dear, ‘The Meanings of Experience’, in *The Cambridge History of Science*, 7 vols, Cambridge 2002-14, III, ed. by Katharine Park and Lorraine Daston, pp. 106-31; *Histories of Scientific Observation*, ed. by Lorraine Daston and Elizabeth Lunbeck, Chicago 2011; *Silent Messengers: The Circulation of Material Objects of Knowledge in the Early Modern Low Countries*, ed. by Sven Dupré and Christoph Lüthy, Münster 2011.

⁶⁰ Van Helmont, ‘Logica inutilis’, § 22, in *Ortus medicinae*, p. 43: ‘Inventio itaque in Logica, non est proprie inventio, ut neque scientia demonstrabilis est vera, et intellectualis. Quia non proprie invenimus, quae quomodolibet scimus, ut non invenimus quae jam habemus, in manu vel in arca; sed non scita ante, proprie inveniuntur, prout et non habita, non possessa, aquiruntur per inventionem, aut donationem. Etenim dum quis mihi ostendit lapidem calaminarem, Cadmiae praeparationem, contentum, Cupri miscellam, et Aurichalci usus, quae antea nesciebam, is docet, demonstrat, datque scientiam ejus, quod ante ignorabatur. Similia vero nunquam docuit Logica.’

modern scholars who were interested in experimental knowledge.⁶¹ The translations of Van Helmont's works that will be studied in the course of this thesis are produced by other university-educated men, who were all interested and actively partaking in the acquisition of knowledge through experience, as will become clear in Chapter 3.

Returning to matters of language, it should again be noted that throughout the Middle Ages and well into the sixteenth and seventeenth centuries Latin was the language of the literate. It was not spoken from the very first moment children were born, in contrast to actual mother tongues. Rather, it was an idiom acquired through education. What is more, it was the system of communication used in science, theology and philosophy. In other words, it was the language of abstract thinking and *scientia*. The high status of that particular idiom, the applicability of terminology and the scholastic method all constituted good arguments in favour of the use of Latin in science. Humanist scholarship introduced more advanced techniques in philology, it developed comparative research methods applied to Greek and Latin sources, it presented the world with editions of manuscripts and printed books, and this in turn led to a reinterpretation of the ancient authorities, such as Aristotle, Hippocrates and Galen. The availability and re-interpretation of these ancient sources would be just the start of several major changes in the approach towards science, during what is often called the 'Scientific Revolution'.⁶² Not a rough cut with the past, but a rapidly changing society, that had more and more access to books due to the discovery of the printing press, forms the background of this period. The increased use of vernacular languages in writing is connected to a confluence of the above mentioned events with an increase of vernacular in religion as promoted during the Reformation. Although the use of vernacular languages and experiments and the practice of science were already present in medieval science, the correlation between the rises of the two together becomes apparent in the sixteenth century. The use of vernacular languages for science was not entirely new in the early modern period, for the Middle Ages also had a tradition of writing science in the vernacular. But this occurred on a much smaller scale than the sixteenth and seventeenth centuries.⁶³ This broader phenomenon of vernacularizing the sciences has to be seen in the new setting created by the printing press, the Reformation and the development of national languages. Within this context, the ideas spread by the Paracelsian revolution in natural philosophy, medicine and theology fell on fertile grounds. Theophrastus Bombastus von Hohenheim (1493-1541), better known as Paracelsus, was a Swiss physician, who mainly wrote in (Swiss-)German and

⁶¹ Smith, *The Body of the Artisan*, p. 18.

⁶² For a discussion on the term and the use in current scholarship, see S. Shapin and S. Schaffer, 'Introduction to the 2011 Edition: Up for Air', in ib., *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life*, 2nd ed., Princeton 2011, pp. xi-l; and the handsome book by Lawrence M. Principe, *The Scientific Revolution: A Very Short Introduction*, Oxford 2011.

⁶³ See for vernacular science in the Middle Ages, for example the following series specifically on the use of Dutch in the medieval scientific writings: 'Artesliteratuur in de Nederlanden', ed. by Orlanda S. H. Lie, 8 vols, Hilversum 2002-.

advocated the use of vernacular languages in education. He made an attempt himself to teach in German during his short-lived appointment as professor of medicine at the University of Basel. The authorities in Basel did not approve, however, and Paracelsus had to flee the city.⁶⁴ Nevertheless, in addition to his new nosological system and the emphasis which he placed upon experience instead of the inherited authorities, an important part of his contribution to the study of medicine also lay in the way he advocated the use of the vernacular for instructing students. Discussions about changing the educational system, including the language of teaching, were reflections of the broader developments in science taking place during the sixteenth and seventeenth centuries. The next section of this chapter will give some examples which demonstrate the promotion of vernacular languages for science and the use of vernaculars at university.

For all these reasons, the period between the sixteenth and the seventeenth centuries represents for us a particularly significant moment in the linguistic history of humankind and in the way in which Latin and national vernaculars readjusted to a reality in rapid transformation. Admittedly Latin had a head start over the vernacular languages: the former was the traditional language for science, the latter lacked the appropriate vocabulary. But it was often in any case difficult to find expressions for new knowledge in either Latin or the vernaculars. This led to the formation of many new words which in itself generated much confusion about the meanings of these words. Paracelsus and his followers became known for their innovative and confusing neologisms, a legacy with which Van Helmont had to deal in his own way.⁶⁵

After addressing some of the main topics of this thesis, we shall now turn to Jan Baptista van Helmont and his views on language and translation. As he wrote in an age increasingly attuned to the power of vernacular languages, a section of the following will be devoted to a brief outline of contemporary debates concerning the role of the vernacular in sixteenth- and seventeenth-century Dutch culture.

⁶⁴ The literature on Paracelsus is vast, but to name a few: Walter Pagel, *Paracelsus: An Introduction to Philosophical Medicine in the Era of the Renaissance*, Basel 1958; Allen G. Debus, *The Chemical Philosophy: Paracelsian Science and Medicine in the Sixteenth and Seventeenth Centuries*, New York 1977, pp. 45-76; Charles Webster, *Paracelsus: Medicine, Magic, and Mission at the End of Time*, New Haven 2008.

⁶⁵ Dietlinde Goltz, 'Die Paracelsisten und die Sprache', *Sudhoffs Archiv* LVI (1972), pp. 337-52; Joachim Telle, 'Die Schreibart des Paracelsus im Urteil deutscher Fachschriftsteller des 16. und 17. Jahrhunderts', *Medizinhistorisches Journal* XVI (1981), pp. 78-100.

Part II: Jan Baptista van Helmont in Context

From the outset, Van Helmont's philosophy is faced with a linguistic predicament: God, who is the foundation of everything, is completely ineffable (*verbum ineffabile*). Similarly, our mind, which Van Helmont defines as the 'image of God' (*het beeldt Gods* in Dutch, *imago Dei* in Latin), cannot be represented by our imagination, nor described with words. Our attempts to articulate our idea of God, our soul and the reality of nature therefore seem destined to fail. In keeping with characteristic Platonic and Augustinian motifs, Van Helmont argues that knowledge starts with the knowledge of our soul. As we shall see in the rest of this chapter, he is of the opinion that our understanding of reality is in fact a process of increasing clarification of ideas and concepts already embedded in our soul as a divine bequest for being the *beeldt Gods/imago Dei*. The 'idea of the understood thing', born as it were in the deepest recesses of our soul, is what Van Helmont calls *inval* in Dutch and *obiectum* in Latin. Van Helmont considers the mind to be an intellective power, capable of turning itself into the object of its own representative activity: 'the intellect transforms itself naturally into the idea of the understood thing.'⁶⁶ Depending on the nature of such an object, the mind may either ascend to the contemplation of God, or descend to the lower regions of bodily life, which Van Helmont characterises as the domain of the sensitive soul (*dierlijke verstand* in Dutch, *anima sensitiva* in Latin). Being a physician, Van Helmont is convinced that these ascending and descending movements of the soul, facilitated by the work of the imagination, may have dramatic consequences for the mental and physical health of the individual human being. The highest object that the mind can attain and into which it can transform itself is the *het beeldt Gods/ imago Dei*.⁶⁷ It is not by accident that both *Dageraed* and *Ortus medicinae*, Van Helmont's principal works, open with a dramatic invocation to יהוה (in Dutch written as Iod.He.Vav.He., i.e. YHVH or Yahweh, the Old Testament name for God)⁶⁸, the ineffable word (*verbum ineffabile*), to whom Van Helmont offers his book as a sacrifice in the vernacular (*holocaustum vernaculum*). It is worth noting that the Latin adjective *vernaculus* indicates both that the offering is written in his mother tongue and that it results from the innermost part of his soul.⁶⁹

Echoing characteristic Platonic tenets, Van Helmont argued that any expression of a concept in a vernacular language – although closer than any other linguistic expression to the truth of the represented reality (*inval/obiectum*) – is already derivative and secondary with respect to both

⁶⁶ Van Helmont, 'Imago mentis', § 50, in *Ortus medicinae*, p. 262. For an overview of all the editions, see Pagel, *Van Helmont*, pp. 209-13. On 'obiectum', see L. Dewan, *Wisdom, Law, and Virtue: Essays in Thomistic Ethics*, Ch. 26 ("Objectum": Notes on the Invention of a Word), New York 2007, pp. 403-43.

⁶⁷ On the relationship between the mind, the imagination and the *imago Dei / het beeldt Gods*, see G. Giglioli, *Immaginazione e malattia: Saggio su Jan Baptiste van Helmont*, Milan 2000, pp. 75-80.

⁶⁸ It should read יהוה for the Hebrew letters Iod He Vav He, as they are named in *Dageraed*, possibly a mistake by the printer.

⁶⁹ Van Helmont, *Ortus medicinae*, sig. Bv; Id., *Dageraed*, sig. *3r. Also in the *Dageraed* we only find the text in Latin here.

thinking and the original unity of being. All original thoughts are expressed in the vernacular, and are already a fragmentation of the primordial unity of truth and being. Knowledge of this ultimate nature of things – i.e., God – cannot be articulated into concepts, images or words. In the end, we can only have *experience* of our *invalen/obiecta* and not a series of mental representations of discursive processes. Can this kind of ‘experience’, however, be somehow rendered into words? In the following we shall present the nature of Van Helmont’s linguistic predicament and sketch the background of his views on expression, translation and communication, by introducing his views on the mind.

Levels of Linguistic Awareness

Two quotations from Jan Baptista van Helmont’s ‘Preface’ to the *Dageraed* give an immediate insight into his views on language:

O You, who are everything, and all I can wish for, it seems fair to me, for the benefit of my neighbours, to express my praise and the assignment of my being, and the properties which I have in fief from you, into my mother tongue which I do not have on loan but own for the duration of my life. For although the first understanding in the soul (Dutch: *d’eerste zielen begriip*; Latin: *primus animae conceptus*) is beyond words, and thus without its own language, I feel that this concept is still raw and undifferentiated, as long as it is not polished, and brought to the mind, and not yet changed into thoughts, words and writings. I feel that this rawness makes the first concept (Dutch: *inval*; Latin: *obiectum*) of my understanding feeble and unstable, and almost obscures it again, and that is why You, in Your eternal wisdom have allowed it to ascend to the mind.⁷⁰

⁷⁰ Van Helmont, ‘Den onuytspreekelijcken naeme’, in *Dageraed*, sigs [*]^r: ‘O Al van alles! en al mijnen wensch, my dunckt billick te doen mijn verheffing en opdracht mijns wesens, en de eygendommen die ick van u te leen houde, ten behoeve mijns naestends, en in mijn moeders ongeleende taele tot lijftocht besit. Want hoewe d’eerste zielen begriip zy buyten woorden, en dus sonder eygen tale: soo voel ick doch dat ‘et noch rauw is, en ongescheyden, soo lang het niet en wordt gevijlt, en tot het gemoet gebracht zijnde, niet verandert in gedachten, woorden, oft geschrift. Ick voel dat dese rauwheyt d’eerste inval mijns begriips onvast en wankelbaer maect, oock haest weder verduystert; en daerom heeft U eeuwige wijsheydt het selve laeten voorder klimmen tot het gemoet.’ As already mentioned, Francis Mercury van Helmont translated the dedicatory letter into Latin to accompany the first edition of the *Ortus medicinae*, as we learned from the introduction to the *Aufgang*, ‘Verbo ineffabili’, in *Ortus medicinae*, sig. B2^r: ‘O omne, omnis, et omne meum votum, merito videor vernacula lingua tibi offerre, nec non vovere feudum meae essentiae, et proprii, quibus a Te investitus auxilio proximi mei utor fruor. Quamvis enim primus animae conceptus extra verba consistat, atque sic absque propria lingua, sentio tamen adhuc esse crudum, neque sequestratum, quousque non limetur ac menti iunctus in cogitationes, verba scripturamque abeat. Hance cruditatem percipio mihi facere primi conceptus obiectum infirmum et instabile, citoque rursus obfuscare. Eapropter aeterna Tua sapientia eam porro ad mentem usque evehi concessit.’ For the difference between *essentia* and *proprium*, see R. Goclenius, *Lexicon philosophicum* (Frankfurt 1613; repr. Hildesheim and New York 1980), pp. 890-1.

And then he expands on the complex relationship between thinking and articulating one's thoughts into different languages:

but as man has indeed (Dutch: *eygentlijck*; Latin: *proprietate*)⁷¹ embodied or ensouled his mother tongue (Dutch: *moeders taele*; Latin: *vernacula*), having learned it from the beginning, and is moreover used to bear in his mind his thoughts, which turn into reflections, speech or writing, in his mother tongue, it is unnatural and alien to the soul to translate again, without the incorporated habit, the first notion of one's understanding – represented in the mind through words in one's mother tongue – into another language. Because the intellect obscures, dilutes and tires itself in the effort of translation, and also drifts apart from the pure and simple spiritual understanding of the first notion (Dutch: *inval*; Latin: *objectum*). And every notion of first understanding, put into words, is always first in one's mother tongue.⁷²

In these passages, Van Helmont seems to allude to two different levels of translation in the way human beings articulate their thoughts into words. One – the deeper level – is the process through which we express the innermost, ineffable truths of the soul in thoughts, which we might call 'raw thinking'. The other is the process through which these thoughts are put into words and the *conceptus* (*begrijp*) becomes *cogitatio* (*gedacht*). These words will be closer to the truth of the soul if one's familiarity with the used language is greater. According to Van Helmont, the vernacular is a more reliable vehicle for the expression of one's knowledge of reality – inward and outward – than Latin or other foreign languages.

With respect to the first point, he sees the original 'conceiving' of the soul (*conceptus*) as a raw and undivided reality, pure and wholly spiritual. Its first product is the *obiectum* – *inval* in Dutch –

⁷¹ The word used in the Dutch text (*eygentlijck*) is clearly an adverb and cannot be used in the sense of *proprietas* in Latin. It seems that the Dutch text is correct here, were the Latin might have been a misinterpretation due to an abbreviation over the page turn.

⁷² Van Helmont, 'Den onuytsprekelijcken naeme', in *Dageraed*, sigs **rv: 'maar alsoo den mensch sijns moeders taele eygentlijck, van den beginne geleert hebbende, ingelijft heeft, oft ingegeestet; en oversulcks gewoon zijnde zijn gepeyns, komende tot bedachtheyt, spraeke, of schrifte, te draegen in 't gemoedt, en tot zijn moeders taele, soo is't oneygen en vrent aen de ziele, zijn eerste begrijps inval, in 't gemoedt verbeelt zijnde, tot woorden in zijn moeders taele, wederom over te stellen, buyten zijn ingelijfde gewoonte, in een andere spraek. Waer in 't verstandt de moeyte doende, verduystert, verswackt, en vermoeyt sich selven in 't oversetten, en vervremt oock des eersten inval's suyer en enckel geestelijck begryp. Dat immers alle inval van 't eerste gepeyns, gaende naer en tot woorden, zy altijd eerst in de moeders taele, [...]'; Id., 'Verbo ineffabili', in *Ortus medicinae*, p. B2^v: 'Sed vero, quum homo vernaculae proprietate ab initio imbutus eam incorporatam vel inspiratam obtineat, et praeterea suas cogitationes, in meditationes, linguas vel scripta abeuntes, menti et vernaculae communicare solet, animae inconueniens et mirum videtur primi conceptus obiectum, in mente vernacula lingua verbis depictum, praeter consuetudinem ingenitam peregrino idiomate donare. In quo intellectus laborans, vertendo semet obumbrat, debilitat ac fatigat, nec non primi obiecti purum et plane spiritualem conceptum alienat. Verum enimvero, omnis primae cogitationis obiectum in verba abiens, in vernacula prius semper haberi compertus sum in homine.'

literally meaning ‘that which falls into the mind from the outside’.⁷³ It is worth noticing that the word *inval* had a specific meaning in Middle Dutch in the mystical tradition, denoting an ‘in-falling’ thought, with a direct influence from God or the devil on the mind.⁷⁴ This is particularly important, as Van Helmont’s *inval/obiectum* has deep theological resonances. As we shall see, the notion of the soul as the image of God (Dutch: *beeldt Gods*; Latin: *imago Dei*) is a leitmotif in Van Helmont’s philosophy, theory of knowledge and medicine. It testifies to Van Helmont’s closeness to mystical views that were common among such Christian writers as Meister Eckhart (c.1260-c.1327), Johannes Tauler (c.1300-1361) and Thomas à Kempis (c.1380-1471).⁷⁵ Moreover, within the system of human faculties, *inval/obiectum* has a key role in mediating knowledge and life between the spheres of reason and the mind. A primordial *inval/obiectum*, understood as the most original pattern of knowledge, is the closest thing to divine truth that a human being can attain. Van Helmont shares these ideas with late medieval Northern mystics, who saw their visions as revelations coming straight from God. In Van Helmont we read that these visions have to be turned into thoughts and words via a process of translation.⁷⁶ This process occurs as soon as the first concept of an idea is connected with the intellect. However, if we bear in mind the general Platonic framework of Van Helmont’s theories, we also realise that thinking in words, speaking and writing are all mental activities that are already one step away from the pureness of the *inval/obiectum*, but that at the same time the understanding of language will eventually reveal the *inval*.⁷⁷ And since human beings are imbued with their mother tongue ‘from the beginning’, this, for Van Helmont, should be the first tool for the expression of thoughts in speech and written language.

Van Helmont’s linguistic predicament is therefore based on precise theological and metaphysical assumptions. Given his view that life and knowledge emerged precariously from a source of energy and meaning that was utterly ineffable (God), the vernacular represented nevertheless the best way of expressing and sharing with our ‘neighbours’ the inward, direct and immediate experience of thinking and meditating. Thinking and writing in Dutch offered Van Helmont the possibility of a religious experience and freedom from the constraints of Latin, foreign languages and any other superimposed and abstract pattern of artificial reasoning.

⁷³ See M. de Vries, L. A. te Winkel a.o., *Woordenboek der Nederlandsche Taal*, 29 vols, The Hague, Leiden 1882-1998, s. v. ‘inval’ (online via www.wnt.inl.nl), (hereafter *WNT*).

⁷⁴ E. Verwijs a.o., *Middelnederlandsch Woordenboek*, 11 vols, The Hague 1882-1973, s.v. ‘inval’: online via www.wnt.inl.nl (hereafter *MNW*).

⁷⁵ For an introduction to German and Dutch mysticism from the thirteenth to the sixteenth century, see: F.-W. Wentzlaff-Eggebert, *Deutsche Mystik zwischen Mittelalter und Neuzeit: Einbeit und Wandlung ihrer Erscheinungsformen*, 3rd ed., Berlin 1969. See also Christine Büchner, *Die Transformation des Einheitsdenkens Meister Eckharts bei Heinrich Seuse und Johannes Tauler*, Stuttgart 2007.

⁷⁶ On Van Helmont and his visions, see Berthold Heinecke, *Wissenschaft und Mystik bei J. B. van Helmont (1579-1644)*, Bern 1996, esp. pp. 115-35.

⁷⁷ Bono, *The Word of God and the Languages of Man*, p. 42-7.

Over the past twenty years historians and linguists have discussed the value of vernacular languages and Latin in the late Middle Ages and the early modern period in some detail.⁷⁸ Josef Schmidt argues that Tauler ‘tried to elevate the vernacular to the level of differentiation known in Latin’, using the oral tradition of the vernacular. Wybren Scheepsma defends that the status of Latin was evidently higher than that of the vernacular among the followers of the Modern Devotion, although vernacular and Latin were equal in functionality. Else Marie Wiberg Pedersen states that the vernacular and Latin could be structured and organised in the same way, giving them the same capacity as information carriers.⁷⁹ The increase of literacy among the non-clerical population in the sixteenth century is paralleled by an increase in the use of vernacular languages. The use of the vernacular began to be advocated in writing, starting with Dante’s *De vulgari eloquentia* (1302-5, first printed in 1529). Although Dante’s defence was itself written in Latin, most subsequent exhortations would be written in the relevant vernaculars.⁸⁰ A defence of Dutch as a scientific language, written in Dutch by Simon Stevin (1548-1620), was published in 1586.⁸¹ As we shall see in the next section, in a time of dramatic political and social change, questions of language and translation were also inevitably connected to discussions about nationality, science and commerce.

Dutch as a Language of Science

Van Helmont gives an account of his life and education in the first three chapters of the *Ortus medicinae*, called ‘Promissa authoris’ (‘The author’s promises’), ‘Confessio authoris’ (‘The author’s confession’), and ‘Studia authoris’ (‘The author’s education’).⁸² In the latter, Van Helmont

⁷⁸ For a discussion of the use of Dutch and Latin in the Middle Ages, see *Verraders en bruggenbouwers: Verkenningen naar de relatie tussen Latinitas en de Middelnederlandse letterkunde*, ed. by Paul Wackers, Amsterdam 1996. On the use of vernacular and Latin in the early modern period, see the already mentioned study on ‘national languages’ by Peter Burke, *Languages and Communities in Early Modern Europe*, Cambridge 2004, pp. 52-88; and for the continuous use of Latin throughout the Early Modern Period, see Jozef Ijsewijn, *Companion to Neo-Latin Studies*, 2 vols, 2nd ed, Leuven 1990-1998.

⁷⁹ Josef Schmidt, ‘Translating the Ineffable: Oral Tradition and Mystagogical Texts: John Tauler’s *Sermons* and Marie de l’Incarnation’s *La Relation de 1654*’, in *Oralité et littérature*, ed. by Hans R. Runte e.a., Paris 1985, pp. 29-36; Wybren Scheepsma, “‘Verzamelt de overgebleven brokken, opdat niets verloren ga’”: Over Latijnse en Nederlandse levensbeschrijvingen uit de sfeer van de Moderne Devotie’, in *Verraders en Bruggenbouwers* ed. by Paul Wackers, pp. 211-38, 334-40; Else Marie Wiberg Pedersen, ‘Can God Speak in the Vernacular? On Beatrice of Nazareth’s Flemish Exposition of the Love for God’, in *The Vernacular Spirit: Essays on Medieval Religious Literature*, ed. by R. Blumenfeld-Kosinski e.a., New York 2002, pp. 185-208; this essay does not deal with the question of ‘truth’, but Wiberg Pedersen states that the vernacular and Latin languages could be structured and organised in the same way, giving equal capacities as information carriers.

⁸⁰ Burke, *Languages and Communities*, p. 65.

⁸¹ Simon Stevin, ‘Uytspraeck vande Weerdicheyt der Duytsche Tael’, in *De Beghinselen der Weeghconst*, Leiden 1586, sigs dD^v- dD3^v. In 1645 Caspar Barlaeus (1584-1648) also published a poem in Latin about the value of writing in Dutch. On Barlaeus and his poem see Tom Deneire, ‘Ruzie in het Latijn over de volkstaal? Barlaeus, Huygens en de *dynamics of Neo-Latin and the vernacular*’, in *Nieuwsbrief Neolatinstenverband XXIV* (2011), pp. 22-9.

⁸² Van Helmont, *Ortus medicinae*, pp. 6-19.

begins with a description of the disastrous year 1580. First of all, his father died in that year, which made him a half-orphan at the age of one. Even more calamitous, in his view, were the most recent political events affecting his country.⁸³ Here he must have been referring to the latest developments in what has come to be called the Eighty Years' War (1568-1648) between Spain and the Dutch rebels against Spanish Habsburg rule. This revolt was a direct result of the unpopular repression of the Protestant movement by Emperor Charles V and, from 1555 onwards, by his son Philip II. After the movement of iconoclasm had raged through the Southern parts of the Netherlands, Philip sent the Duke of Alba to restore the peace. However, the opposite was achieved, for the rebellion grew stronger and, under the command of William the Silent (1533-1584), more and more cities and areas of the Netherlands chose openly to side with the rebels. It was around 1579 when it became clear that there were two parties within the Netherlands, and two separate unions were formed. The one located in the Southern, French speaking part of the Netherlands - the Union of Arras - offered Philip II neutrality, on the grounds of an earlier treaty in which Philip had promised to withdraw his troops. The other group - the Union of Utrecht - brought together several provinces, predominantly of the Protestant faith, under the authority of William and the States-General of the Netherlands (until that moment the States-General had represented all the Northern and Southern Provinces of the Netherlands taken together). Brussels sided with the protestant rebels in the Union of Utrecht, which meant that Van Helmont's Catholic family had to deal with protestant rulers for the first six years of Jan Baptista's life. It is very likely that the latter had this division of the Habsburg Netherlands in mind when he described 1580 as 'the most calamitous year' in his life. In 1585 Antwerp fell into the hands of Philip II (through the Duke of Parma), after the cities of Ghent, Bruges and Brussels had already been conquered during the previous year. The fall of Antwerp marked the split of the Habsburg Netherlands into the Dutch Republic in the north and the Spanish Netherlands in the south. Officially, the Dutch Republic was granted independence from the Spanish King only in 1648, after all the parties involved signed the Peace of Münster. For the southern Netherlands, the migration of intellectuals and merchants to the Northern provinces, where religious control was less repressive, represented indeed a

⁸³ Van Helmont, 'Studia authoris', § 1, in *Ortus medicinae*, p. 16: 'Anno 1580, totius Belgii calamitosissimo, parens meus obiit; fratrum ac sororum postremus, et vilissimus ego.' The term 'Belgium' was first used by Julius Caesar in his *Commentarii de bello gallico* for the Northern part of Gaul. Until far into the seventeenth century, 'Belgium' was a common term for the geographical area of the seventeen provinces of the Low Countries and the Prince-Bishopric of Liège, an area in which currently fall Belgium, Luxembourg, The Netherlands and parts of northern France. For more information on the terminology used for this area, see Willem Frijhoff and Marijke Spies, *1650: Bevochten eendracht*, The Hague 1999, pp. 60-3. I shall be using the following terms: 'Dutch Republic' for the seven Northern provinces of the Habsburg Netherlands, which fought for their independence from 1579 onwards; this is geographically more or less comparable to the current Netherlands. I shall indicate with 'Spanish Netherlands' the Southern parts of the Habsburg Netherlands, which were not included in the Dutch Republic and which roughly correspond to current Belgium and Luxembourg. The 'Habsburg Netherlands' is the term used for all the seventeen provinces belonging to the Spanish crown, which were organised into one area since the Reichstag in Augsburg of Charles V at 16 June 1548 (until 1579).

‘calamitous’ event. While it marked the beginning of the Dutch Golden Age, it signified a slow decline of power and wealth in the southern parts of the Netherlands.⁸⁴

It seems that the political situation increased the awareness of the use of Dutch as a common language, and stimulated the promotion of Dutch. In his book *Languages and Communities in Early Modern Europe*, Peter Burke has shown that Dutch was one of the many forms of vernacular that, during this period, won in popularity over Latin as a local language for administration, jurisdiction and science.⁸⁵ The increase in the popularity or even the awareness of Dutch can be traced by the numbers of works and translations that were printed.⁸⁶ Another sudden increase is noticeable in the publications of Dutch grammars, texts about the usefulness of the language and its standardisation. In 1584, the first Dutch grammar, written by Hendrick Laurensz. Spiegel (1549-1612), was published by the famous Antwerp publishing house of Plantijn. This grammar, *Twe-spraack van de Nederduitsche Letterkunst* (‘A Dialogue on Dutch Grammar’), aimed to glorify the Dutch language, to improve it and to purge it from impurities. As Spiegel explained in his dedication letter to the burgomasters of Amsterdam:

Is it not highly surprising and a truly reprehensible matter, Your Excellencies, that although our general Dutch language is a pure, rich, elegant and rational language, as widely used as other languages, in many states, kingdoms and countries, and producing many very clever and wise ideas on a daily basis, it is nevertheless supported so weakly and is so little enriched and embellished with erudition – is this not a regretful inconvenience and disadvantage to the nation?⁸⁷

Spiegel and his friends produced further books on grammar, such as *Ruygh-bewerf vande redenkaveling* (‘An Outline of Dialectics’), published in 1585. In the introduction to this work, dedicated to both the burgomasters of Amsterdam, and the board of the newly founded University of Leiden (1575), the authors pleaded for Dutch instead of Latin as the language to be used at the university:

⁸⁴ For more information on the history of the Low Countries in the sixteenth and seventeenth century, see for example: Jonathan Israel, *The Dutch Republic. Its Rise, Greatness, and Fall 1477-1806*, Oxford 1995; Frijhoff and Spies, *1650: Bevochten eendracht*; Maarten Prak, *The Dutch Republic in the Seventeenth Century: The Golden Age*, Cambridge 2005; Simon Schama, *The Embarrassment of Riches: An Interpretation of Dutch Culture in the Golden Age*, New York 1997; see also www.dutchrevolt.leiden.edu, a website from Leiden University on the Dutch Revolt.

⁸⁵ Burke, *Languages and Communities*, esp. Chapters 2 (‘Latin: A Language in Search of a Community’), pp. 43-60, and 3 (‘Vernaculars in Competition’), pp. 61-88.

⁸⁶ *Door eenen engen hals*, ed. by Hermans, pp. 5-25.

⁸⁷ H. L. Spiegel, e.a., *Twe-spraack vande Nederduitsche letterkunst*, Antwerp 1584, sig. A1v: ‘Ist niet hóoghlyck te verwonderen ende een recht beclaaghlyke zake E. Heren, dat al hoe wel onze alghemene Duytsche taal een onvermengde, ryke, cierlyke ende verstandelycke spraack is, die zich óóck zó wyd als enighe talen des werlts verspreyt, ende dies in haar bevang veel Rycken, Vorstendommen, ende landen bevat, welcke daghelycks zeer veel kloecke ende hóoghghelerde verstanden uytleveren, datze nochtans zó zwackelyck opghehulpen ende zó wainigh met gheleerdheyd verriyckert ende verciert word: tot een jammerlyck hinder ende nadeel der volcx.’

It is our most special intention to request that, since the university is not bound to any language, but aims to do everything in the most competent manner and with the greatest amount of progress in mind, that you will make our mother tongue into a mother tongue of all the great arts and sciences, that you will promote this case, and will consider how incredibly useful it will be for our country. We emphasise the advantage you might gain from this, for if you see what students, who were not looking any further than to get their heads around the material, have accomplished in a short period of time: then you can ask yourself what a scholar could manage over a longer period in the expectation of a salary. This will make it possible to you to be the first (undoubtedly to the glory of the entire country, and especially the university), to formulate general rules, to achieve for the first time no poor work as at present, but a truly excellent piece of scholarship that will (in accordance with our most stringent wish) put the present one to shame, and in due course also other sciences. This will be to the immense advantage of every lay-person, who will be able to become knowledgeable in all the arts with pleasure, without the difficulty of learning languages.⁸⁸

This passage not only shows a striking similarity with current debates at our own universities and institutes (how to acquire more students; how to keep standards high; whether or not to make Latin compulsory for admission, etc.), but it also hints at the apparent struggle of learning languages, and the disadvantage a foreign language can cause to the quality of written work. The introduction to the *Twe-spraack* was written by Dirck Volckertsz. Coornhert (1522-1590), the first Secretary of State of the Republic of the Seven United Provinces. He was one of the first, in the Northern Netherlands, to follow the purist movement advocated by some authors from the Spanish Netherlands, who were trying to structure and organise the Dutch language according to good grammar, based on classical models, and to expand the Dutch vocabulary.⁸⁹ Coornhert writes that he wanted to compose a Dutch grammar himself, but had to give up his plans owing to other commitments, and was therefore even more pleased to be able to write an introduction to the *Twe-spraack* and to summon ‘all Dutch people, young and old, man and

⁸⁸ H. L. Spiegel, *Ruygh-bewerf vande redenkeveling*, Leiden 1585, p. 5-7: ‘Zulx is óock hier ons byzonderste wit: verzoeckende, alzó de Schole an ghene tale ghebonden is, maar in alles de bequaamste, tót meeste vórdering bezicht; dat ghy van onze Moeders-tale een Moeder-taal aller ghoeder kunsten maken, deze zake behertighen, ende de gróte nutbaarheid die den Vaderlande hier duer magh gheschieden overweghen wilt. Nópende de moghelyckheid, die mooghdy hier an afnemen, bemerkende, wat leerlingen niet verder ziende als om zelf de zake wys te werden, in een korte wyle hebben kunnen doen: overleggen wat een gheleerder, in langheid van tyd, midts hope van lóón, in zulx zoude vermoghen: Dies u vervorderen (onghetwyfelt tót gróten lóf des ghemeenen Vaderlands, ende zonderling des Hóghen Schools) d’eerste te zyn, om door algheemeene lessen voort eerst int werck te stellen, niet dit slechte werck, maar deze hóoghwaardighe kunst met zulck werck dat dit (na ons hóoghste wenschen) te schande make, ende metter tyd andere kunsten meer. Tót onuytsprekelyck voordeel van elck leeck-mensche, die zonder moeijelycke arbeyd int leeren der talen, met lust alle kunsten dies zullen moghen wys werden.’

⁸⁹ Karel Porteman and Mieke B. Smits-Veldt, *Een nieuw vaderland voor de muzen*, Amsterdam 2008, pp. 97-99.

woman to read it. Since just as a man without reason would be nothing but an irrational animal, so a man without speech would hardly be different from a wild beast'.⁹⁰ He also explains the need for a language to have a proper structure and a clear vocabulary:

[L]anguage is a midwife of the senses, an interpreter of the heart, a painting of thoughts, which will otherwise stay hidden and invisible within people. This was shown very well by Socrates when a father asked for the opinion of his son, and he said: 'Speak, son, so that I may see you'. In this way, language paints the hidden thoughts so gracefully and fruitfully for the ear of others, that one can see them correctly either with pleasure or to good use, and without the need of any paint for the paint-brush or pen of the tongue other than a sensible and rich language. A language is sensible when its words are so clear, that they reveal things and explain them either in first instance or with a little interpretation, just as bright stars reveal themselves and light up in the dark night.⁹¹

Clearly Coornhert's ideas about language are opposite to Van Helmont's interpretation. First of all, Coornhert's language is connected to the senses ('a midwife of the senses') and therefore to the sensitive soul. For Van Helmont, on the other hand, language, and especially one's mother tongue, has nothing to do with reason (since Van Helmont objects to the idea that reason mediates between the mind and the senses) and originates from the intellective soul. We shall discuss this in detail in the next section.

Simon Stevin, a mathematician, was another important supporter of the improvement and more extensive use of the Dutch language, especially in scientific texts. He started publishing his works in Latin, but switched entirely to Dutch during his life. Stevin gives a number of reasons for promoting the use of Dutch as a language for scientific texts: first of all, the conciseness of the language, which includes many words of one syllable; secondly, the possibility of combining words into new words; thirdly, its suitability for scientific argumentation; and, finally, its power in convincing listeners and touching them emotionally, as Protestant preachers have shown in

⁹⁰ Coornhert, 'Voorreden', in Spiegel e.a., *Twe-spraak*, sig. A5r: 'allen Nederlanders oud ende jong, man ende wyf tot het lezen van dien te raden. Want ghelyck de mensche zonder reden niet anders zoude zyn dan een ander onredelyck dier, also en is hy zonder de sprake niet veel anders dan een wild beest.'

⁹¹ Ibid., sig. A5v: '[...]want de tale is een vroedwyf des zinnen, een tolck des herten ende een schildery des ghedachten, die anders binnen den menschen verborghen ende onzichtbaar zyn: twelck Socrates fyn te kennen ghaf als hem by een vader zyn oordeel ghevraaght zynde van een jongskens daar toe zeyde, spreekt zoon, op dat ick u magh zien. De tale dan schildert de verholten ghedachten zo bevallyck of vruchtbaarlick voor t'ghehoor van anderen; datmen die met lust ofte met nut te recht magh anschouwen: zonder ander verwe tót het pinceel der tonghen ófte pennen daar toe te behoede, dan een verstandighe ende ryke tale, verstandigh is zy als haar wóorden zyn zó duydelick, dat zy, óf ten eersten aanzien, óf door een waynigh inziens, niet anders dan de klare sterren inden duysteren nacht haar zelven openbaren ende verklaren.' The reference to Socrates is probably taken from Erasmus, who uses this story several times in his works and mentions Apuleius, *Florida* 2, as his source in *Adagia* 1554; see: Ari Wesseling, 'Dutch Proverbs and Ancient Sources in Erasmus's Praise of Folly', in *Renaissance Quarterly*, XLVII.2, 1994, pp. 351-378 (369-71).

the German countries.⁹² Johannes Goropius Becanus (1519-1572) went even a step further, claiming that Dutch, and specifically the Antwerp dialect, was the language spoken in Paradise before the Fall. Becanus, who was originally from Gorp in the Brabant, lived most of his life in Antwerp, where he had his practice as a physician. He was close friends with the publisher Christoffel Plantijn (1520-1589), who published Becanus' works on language after the latter's death.⁹³ Becanus' theory was based on the very word 'Dutch', as a testament to its primeval origins, for 'Duits' would mean 'doutst', i.e., the oldest.⁹⁴ Many writers would refer to Becanus directly or indirectly over the next two centuries, saying that Dutch had the same standard and level as Hebrew and therefore was necessarily better than any derived, 'bastard' tongue, such as the Romance languages.⁹⁵

Spiegel's *Twe-spraack* also refers to Dutch as a language that has to be cleaned from 'bastardised' words:

[W]e have tried, to the best of our ability, to give our language a good structure formed on its own basis, with its own natural declensions and conjugations. Sometimes it was necessary (since we have tried to avoid loanwords as much as possible) to represent new things in our language with unusual words. But we feel excused to do this as it would have been permitted among the Greek and Romans in equal measure.⁹⁶

This last argument appealing to the Greek and Romans who would also have come up with their own words and were able to teach and write in their mother tongues, is a recurring argument throughout Europe at the time in defence of the use of vernacular languages. Cornelis Kiliaan (1528/9-1607), proof-reader and typesetter at the publishing house of Plantijn in Antwerp, wrote an influential Dutch-Latin dictionary, first published in 1574. The third revised edition of this work, the *Etymologicum Teutonicae linguae sive dictionarium Teutonico-Latinum* (1599),

⁹² Simon Stevin, 'Uytspraeck vande Weerdicheyt der Duytsche Tael', in *De Beghinselen der Weeghconst*, Leiden 1586, sigs dD^v- dD3^v.

⁹³ Johannes Goropius Becanus, *Opera hactenus in lucem non edita, nempe Hermathena, Hieroglyphica, Vertumnus, Gallica, Francica, Hispanica*, Antwerp 1580. On Becanus and the reception of his language theory, see Tom Deneire and Toon Van Hal, *Lipsius tegen Becanus: Over het Nederlands als oertaal. Editie, vertaling en interpretatie van zijn brief aan Hendrik Schotti (19 december 1598)*, Amersfoort 2006.

⁹⁴ Marijke van der Wal en Cor van Bree, *Geschiedenis van het Nederlands*, Houten 2008, p. 189.

⁹⁵ Porteman and Smits-Veld, *Een nieuw vaderland voor de muzen*, p.41.

⁹⁶ *Twe-spraack*, sig. A3^{rv}: 'want wy hebben ons beste vermoghen in dezen ghetracht om onze taal uyt haar zelfs grond in ghoede schicking, door haar eyghen natuurlyke buyghing ende vervoeghing te brenghen: zyn wy somwyl ghenóódzack, (alzó wy zó veel doenlyck is, alle bastaardwóórdén ghemyt hebben) om onghewone dinghen in onze taal met onghewone wóórdén (doch uyt de grond onzes taals ghenomen) uyt te beelden: wy eyschen daar in verschoning alzo zulcx by den Grieken ende Latynen in ghelyken gheval elck gheóórloft is gheweest.'

reveals in particular how he tried to clear Dutch from words borrowed from other languages, by adding the words taken from Romance languages only in the Appendix.⁹⁷

The publication of the *Twe-spraack* marks the start of the standardisation of the Dutch language. The dialects of Flanders, Brabant and Holland were taken into particular consideration by the authors of grammars and dictionaries. The first collaborative Bible translation, named the *Statenbijbel*, was printed in 1637, and its translators had to make choices in their use of words and dialect forms.⁹⁸ The translators, coming from different dialect areas from the entire Habsburg Netherlands, tried to achieve a generally accepted form of Dutch, which in itself was going to have great influence on the standardisation process. The operation seems to have been successful, as in 1650 Joost van den Vondel (1587-1679) wrote in his *Aenleidinghe ter Nederduitsche dichtkunste* ('Introduction to Low-German Poetry') that the Dutch language had now been cleansed from loanwords:

Regarding our language, which for a few years now, has been built up and cleared from loanwords and non-Dutch terms, presently gives the student many advantages. This language is currently spoken fluently by well-educated people in The Hague, the seat of the States-General and the court of their Stadholder, and in Amsterdam, the most powerful commercial city of the world.⁹⁹

The tendency to avoid loanwords among Dutch authors in the sixteenth and seventeenth centuries can be seen as a response to the translators of the previous centuries. Among the difficulties faced by the latter, Geert Grote (1340-1384), the initiator of the movement of the 'Brethren of Common Life' and the *Devotio moderna* in the Netherlands, mentioned the differences in syntax between Dutch and Latin, but also the lack of words in Dutch.¹⁰⁰ During the thirteenth and fourteenth centuries, it improved substantially as a result of the wealth of

⁹⁷ Cornelis Killiaan, 'Appendix peregrinarum, absurdarum, adulterinarumque dictionum', in *Etymologicum Teutonicae linguae sine dictionarium Teutonico-Latinum*, Antwerp 1599, pp. 691-725.

⁹⁸ A variety of manuscript translations was written from the thirteenth century onwards; and the first printed Dutch Bible translation was published in 1477, now known as the Delft Bible. The 1637 *Statenbijbel*, however, was the first collaborative translation, taking into account all the different dialects in the Northern and Southern Netherlands. For an overview of the history of Dutch Bible translation up to the *Statenbijbel*, see: Cebus C. de Bruin, *De Statenbijbel en zijn voorgangers: Nederlandse Bijbelvertalingen vanaf de Reformatie tot 1637*, revised by F. G. M. Broeyer, Haarlem and Brussels 1993.

⁹⁹ Joost van den Vondel, 'Aenleidinge ter Nederduitsche dichtkunste', in *De Werken van Vondel*, ed. by Leo Simons e.a., 10 vols, Amsterdam 1927-37, V, pp. 484-91, lines 14-27: 'Wat onze spraek belangt, die is, sedert weinige jaren herwaerts, van bastertwoorden en onduitsch allengs geschuimt en gebouwt, en geeft den leerling nu veel vooruit [...]. Deze spraek wort tegenwoordigh in 's-Gravenhage, de Raetkamer der Heeren Staten en het hof van hunnen Stedehouder, en t' Amsterdam, de maghtighste koopstadt der weerelt, allervolmaeckst gesproken by lieden van goede opvoedinge.'

¹⁰⁰ Geert Grote was a very important figure in the *Devotio moderna*. This movement strongly emphasised the use of the vernacular for religious purposes. For a standard work on the *Devotio moderna* and its founder, see: R. R. Post, *The Modern Devotion: Confrontation with Reformation and Humanism*, Leiden 1968. Grote touches upon translation issues especially in his introduction to the Dutch translation of the Hours of the Virgin, see Paul Wackers, 'Latinitas en Middelnederlandse Letterkunde: Ter inleiding', in *Verraders en bruggenbouwers*, ed. by Wackers, pp. 22-7.

mystical treatises written in Dutch and the creative work of various translators.¹⁰¹ Translators could follow various options when they were faced with the difficulty of rendering original notions into Dutch. They sometimes kept the Latin word, but often they chose to pursue some kind of translation, or to invent new words (neologisms). Bogaart distinguishes three forms of neologisms from Latin into Dutch: 1. loanword: a word made up by the translator which is similar in sound and meaning to the Latin original; 2. loan translation: a word similar to the original term in meaning, but not in sound; 3. loan meaning: a word that already existed in Dutch, but which has been given a new meaning.¹⁰²

Bogaart calls these forms neologisms, but it would be more precise to call them translations; the ‘true’ neologism, ‘a word or phrase which is new to the language; one which is newly coined’, forms in fact a fourth category in its own right.¹⁰³ A large part of the activity of writing scientific texts at the time consisted of translating and re-writing older medical and scientific treatises. This left its traces in the vocabulary and syntax of vernacular languages. Over the course of the fifteenth century, a vocabulary for philosophical, theological and scientific topics began to emerge. Although the sixteenth and seventeenth centuries saw many Dutch authors elaborating new theories and concepts rather than translating previous works, these authors still had to deal with the available, Latin-based vocabulary. This is the situation in which Van Helmont, too, found himself: although appalled by the bookish culture of the schools, he could not avoid using the established vocabulary of the metaphysical, theological and medical tradition.¹⁰⁴ As I shall show in this dissertation, Van Helmont came up with several neologisms when he had to describe a new concept, for example the famous cases of ‘blas’ and ‘gas’. Although he maintained the view that the vernacular is closer to the understanding of nature than Latin, he received his education from the University of Leuven in Latin. Therefore, it does not come as a surprise that his philosophical, theological and medical vocabulary is based on Latin terminology. Yet, it also means that he had to translate terminology, concepts and ideas from Latin into Dutch, as can be seen in the sections of the *Dageraad* and the *Ortus medicinae* devoted to the study of the mind. From God to the mind (*begryp/conceptus* and *inval/obiectum*), from the mind to nature, and from one mind to other minds: in all these cases, Van Helmont was dealing with different forms and levels of translation, i.e. translation of the unfathomable divine image

¹⁰¹ Saskia Bogaart, *Geleerde kennis in de volkstaal: Van den proprieteyten der dinghen (Haarlem 1484) in perspectief*, Hilversum 2004, pp. 24-5; S. Axters, *Scholastiek Lexicon: Latijn-Nederlandsch*, Antwerp 1937, pp. 3-13.

¹⁰² Bogaart, *Geleerde kennis*, p. 25.

¹⁰³ *OED*, s. v. ‘neologism’.

¹⁰⁴ Van Helmont, ‘Aen de Oeffenaers der Geneeskunst’, in *Dageraad*, sig. **3v: ‘Dus heb ick voorgenomen te schrijven, niet ’t gene, tot walgens toe, de Geleerde soo dickwils hebben heschreven: noch en wil andere lieden gepeynsen niet uytleggen, (ick ben daertoe niet verkoren,) maer wel die gaven, voor de welcke ick den Almogenden in ’t schuldt-boeck stae, begeer ick mede te deelen.’ In translation: ‘Thus I do not intend to write about those things, which have been rewritten by the Scholars, to loathing, nor do I want to explain other persons’ thoughts (for that I have not elected), but I do wish to speak of those talents, for which I am in the debt to the Almighty.’

impressed in the human soul into an intelligible *inval*, translation of this *inval* into a communicable representation using the vernacular, and finally translation of the vernacular *inval* into a Latin *obiectum*, capable of being shared by all members of the European republic of letters.

Van Helmont's Philosophy of Language and Theory of Knowledge

In the *Dageraed*, Van Helmont outlines his ideas about the mind and the soul in two short chapters, 'Van reden en verstandt' ('On reason and intellect') and 'Van de ziele, en beelddt Godts' ('On the soul and the image of God'). Later, in the *Ortus medicinae*, he added a number of chapters on the mind and the soul. Although none of these correspond precisely with the two chapters in the *Dageraed*, all topics examined in 'Van reden en verstandt' and 'Van de ziele, en beelddt Godts' are covered in the various chapters of the *Ortus medicinae*.¹⁰⁵ A brief extract of these ideas follow here.

According to Van Helmont, life is the defining characteristic of the created world. In order to know the essence of life, we need to know the soul (*anima*), for soul and life are in fact synonymous in the Helmontian universe.¹⁰⁶ The difference between the human soul and all other natural souls is that the latter are perishable entities. Only the human soul (i.e., the mind or intellect, *gemoet* or *verstandt* in Dutch, *mens* or *intellectus* in Latin) is immortal, since it carries the image of God.¹⁰⁷

This image cannot be conceived in our heart (*cor*), nor can it be expressed in words during this life, since it conveys our resemblance to God. Besides this, there is no other image within us which can be offered to our faculty of conceiving notions (*conceptus*).¹⁰⁸

For Van Helmont, there are many kinds and species of vital lights in nature, but the light of the human intellect is a 'formal substance' (*substantia formalis*), while the others are 'substantial forms' (*substantiales formae*). This means that while the intellect is a pure form, all other created substances are temporary combinations of matter and form.¹⁰⁹ Van Helmont describes the mind

¹⁰⁵ All chapters on the soul and mind are: 'Imago mentis', 'Demens idea', 'Sedes animae', 'A sede animae ad morbos', 'Tus duumviratus', 'Mentis complementum', 'Duumviratus', 'Tractatus de anima', 'Distinctio mentis a sensitiva anima', 'De animae nostrae immortalitate', 'Nexus sensitiva et mentis', 'Imago Dei'.

¹⁰⁶ Van Helmont, 'Imago mentis', § 1, in *Ortus medicinae*, p. 253: 'vita et anima sunt veluti synonyma'.

¹⁰⁷ Ibid., § 22, p. 257: 'Non est ergo gloriosa imago Dei, separata ab anima, ut nec separabilis: sed ipsa mens est gloriosa imago, tam intima animae, quam ipsamet anima sibi.'

¹⁰⁸ Ibid., § 48, pp. 261-262: 'Quae imago nec corde cogitari, nec verbis in hac vita exprimi potest, quia Dei similitudinem refert, extra quam non est alia in nobis imago, quae conceptui offerri possit.' Here it is worth mentioning that, in referring to the soul as the heart, Van Helmont is certainly not trying to recover the Aristotelian notion of the heart as the seat of the soul, but he is referring to the mystical tradition of the heart as the true centre of personal faith.

¹⁰⁹ Ibid., § 11, p. 255. This is an Aristotelian perception of *mens* (*νοῦς*), as described by in *De anima*, III.4, 429a, 22-3, translated by W. S. Hett, Cambridge 1957, p. 165: 'By mind I mean that part by which the soul thinks and forms judgements.'

as a spiritual, vital and luminous creature.¹¹⁰ As a source of pure, immaterial light, it is an absolute unity, a place where faculties and operations ‘melt’ into an undifferentiated unity (*versmiltten* in Dutch, *colliquescere* in Latin) that mirrors the absolute unity of God’s mind: ‘if the mind must convey the image of God, all the properties of the mind should be resolved into the intellectual substance of simple light.’¹¹¹ To this connection, Van Helmont – the ‘philosopher by fire’ (*philosophus per ignem*) as he calls himself¹¹² – adds a simile with characteristic chemical overtones: ‘Just as smoke lit up by a flame is the same thing as the flame in both shape and matter, likewise the soul is the pure and naked intellect, and the image of the uncreated light.’¹¹³ Drawing on the typical imagery of the metaphysics of light, alchemical natural philosophy and theories of generation, Van Helmont is trying to describe the coincidence of knowledge and reality.¹¹⁴ In Platonic terms, the ‘truth of being’ (*veritas essentiae*, and *waerheydt des wesentheden* in Dutch) coincides with the ‘truth of the intellect’ (*veritas intellectus*, and *waerheydt des verstandelijcker kennissen* in Dutch).¹¹⁵ As stated in the *Dageraed*:

So says also Aristotle that the principles of being, and the principles of the intellect are the same (3 Metaphysics). And I also understand that the truth of essences and the truth of the intellect are the same, and correspond with one being, truth and essence: similarly, the essences and truths melt together in the intellect.¹¹⁶

The ‘colliquament’ is the reproductive-alchemical metaphor aptly used by Van Helmont to represent the process through which differences and divisions within the human soul disappear to reach a state of ontological and cognitive ‘fusion’. Such a condition transcends reason and language, and can only be tested in one’s own soul in the act of thinking and meditating. Van Helmont maintains that there are many ways of demonstrating the immortal nature of the

¹¹⁰ Van Helmont, ‘Imago mentis’, § 11, in *Ortus medicinae*, p. 255.

¹¹¹ Ibid., § 28, p. 258: ‘si mens ejus imaginem referre debeat, saltem omnis mentis proprietates colliquescere debeat in substantiam intellectivam simplicis lucis.’

¹¹² Van Helmont uses this name for himself for the first time in the dedication letter to the Prince-Elector Archbishop Ferdinand of Bavaria, in Van Helmont, *Supplementum de spadanis fontibus*, Liège 1624, p. 3.

¹¹³ Van Helmont, ‘Imago mentis’, § 29, in *Ortus medicinae*, p. 258: ‘Perinde ut fumus, per flammam accensus, in figura materiaque, est idem cum flamma. Sic anima est nudus et purus intellectus, et imago increati luminis.’ Here it is worth pointing out that the Latin words *colliquescere* and *colliquamentum* were technical terms of both embryology (the ‘colliquament’ is the original fluid in which the embryo is immersed and starts taking shape) and alchemy (*colliquatio* and *colliquefactio*, as Martin Ruland explains in his *Lexicon alchemiae*, stand for the process of melting various substances into ‘one composite entity.’ See M. Ruland, *Lexicon alchemiae, sive dictionarium alchemisticum*, Frankfurt 1613; repr. Hildesheim and New York 1987, p. 164: ‘Colliquatio, colliquefactio est plurium in igni ad unum compositum, per igneam eliquationem coniunctio’).

¹¹⁴ David C. Lindberg, ‘The Genesis of Kepler’s Theory of Light: Light Metaphysics from Plotinus to Kepler’, *Osiris*, 2nd Ser. II, (1986), pp. 4–42.

¹¹⁵ Van Helmont, ‘Imago mentis’, § 5, in *Ortus medicinae*, p. 254.

¹¹⁶ Van Helmont, ‘Van reden en verstand’, in *Dageraed*, p. 26: ‘Dus seght oock Arist. dat de beginselen des wesens, en de beginselen des verstands, zijn de selve, 3 Metaph. En ick verstae oock, dat de waerheydt des wesentheden, en de waerheydt des verstandelijcker kennissen zijn een en het selve ding; en alsoo als een ding, waer, en wesen, over-een-komen: soo moeten insgelijcks de wesentheden en waerheden in het verstandt in een versmiltten.’

human soul, but they all are logical and bookish arguments, and therefore remain unpersuasive. The fact that the intellect is immortal can only be *experienced*. Experience in this context means the coincidence of the understanding subject with the understood object. The highest point in human life and knowledge is intellectual knowledge (*verstandelijcke kennisse* in Dutch, *intellectualiter intelligere* in Latin), through which one feels (*gevoelen* in Dutch, *sentire* in Latin) the immortality of the mind ‘as if by touching it’ (*velut tangendo*).

In defending a unitary, ‘colliquated’ view of the mind, Van Helmont rejects the Augustinian tripartite division of the faculties of the soul into intellect, will and memory. According to Van Helmont, will and memory operate in the soul during its earthly life and have no use in the afterlife; for this reason, they perish with the body.¹¹⁷ Van Helmont also rejects the view developed by the aforementioned Tauler, that the human soul is divided into the ‘soul’ (*anima*, external and superficial) and the ‘bottom of the soul’ (*fundum animae*, the innermost core of the soul).¹¹⁸ As already said, in Van Helmont’s opinion there is only one, undivided soul, the ‘colliquament’ of being and intellect in the very core of human mind.¹¹⁹

However, Van Helmont does not rule out the possibility that the human mind, in knowing its own being, may describe this nature with a number of reliable concepts. The soul, he writes both in the *Dageraad* and the *Ortus medicinae*, can bring forth three different spiritual essences (*geestelijck wesen*, in Dutch, *substantia spiritualis*, in Latin) when it looks at its own beauty. These essences – understanding, will and love (*verstant, wille en liefde* in Dutch, *intellectus, voluntas et amor* in Latin) – are not to be considered as actual partitions of the soul, but should only be understood in terms of conceptual divisions.¹²⁰ Van Helmont insists on their substantial union: ‘it is evident that in the mind intellect, will and love are united in a substantial way (*substantialiter counita*)’.¹²¹ However, because of the Fall, human beings have become blind and can no longer see the divine light and its essences. One way of regaining the original vision is to reject reason, and to follow the desire to find God’s light. With this partly Platonic and partly Christian mystical idea of the soul, Van Helmont concludes the chapters on the soul and the mind in *Dageraad* and the chapter ‘Imago mentis’ in *Ortus medicinae*.

¹¹⁷ Ibid., ‘Van de ziele, en beeldt Godts’, pp. 32-4. See ‘Imago mentis’, § 20, in *Ortus medicinae*, p. 257; § 23, p. 258.

¹¹⁸ Van Helmont, ‘Imago mentis’, § 21, in *Ortus medicinae*, p. 257; Id., ‘Van de ziele, en beeldt Godts’, in *Dageraad*, pp. 32-3.

¹¹⁹ Van Helmont, ‘Van de ziele, en beeldt Godts’, in *Dageraad*, p. 33. On Johannes Tauler (1300-1361), see Wentzlaff-Eggebert, *Deutsche Mystik*, pp. 102-18. Van Helmont is referring to Tauler’s ‘Seelengrund’. For an explanation of this term, see Ronald J. Sider, *Andreas Bodenstein von Karlstadt: The Development of His Thought 1517-1525*, Leiden 1974, pp. 210-2, and Claire Champollion, ‘La place des termes “Gemueete” et “Grunt” dans le vocabulaire de Tauler’, in *La Mystique Rhénane*, Paris 1963, pp. 179-92.

¹²⁰ Van Helmont, ‘Van de ziele, en beeldt Godts’, in *Dageraad*, pp. 35-7; ‘Imago mentis’, § 11, in *Ortus medicinae*, p. 254.

¹²¹ Van Helmont, ‘Imago mentis’, § 46, in *Ortus medicinae*, p. 261: ‘Pater ergo, in mente intellectum, voluntatem atque amorem, substantialiter counita.’ (misprint in 1707 edition, as ‘cognita’, collated with 1652 edition).

Human beings, however, are not pure intellects. In the course of their earthly life, they find themselves in an awkward cohabitation with their bodies. The sensitive soul (*anima sensitiva*) is the part of the soul that is connected to the body and, as a substantial form, is subject to the physical and vital processes of nature. We share the sensitive soul with the animals. The mind is capable of feeling corporeal things and having sense perception because it is connected to the sensitive soul. Therefore, the mind perceives sensible reality as a reflection produced by the distorted mirror of the sensitive soul; we, as sensible creatures, cannot perceive our mind through our senses: ‘as the mind is within us, and yet it cannot be perceived (*sentitur*) by us, so its unremitting and undisturbed operations cannot be perceived by our senses.’¹²² By contrast, what the senses perceive in all its force is the indomitable nature of desire and lust, which scholastic philosophers and theologians have misrepresented as free and rational will. ‘On the stage of the universe,’ says Van Helmont, ‘no faculty is more pernicious than free will, for this one alone causes all the divisions that separate man from God.’¹²³

With respect to the relationship between the sensitive soul and the intellect, Van Helmont explains that reason (*reden* in Dutch, *ratio* in Latin) forms ‘the bridge between the senses (*sinnen*) and the animal intellect, i.e., the imagination.’¹²⁴ However, while in the Aristotelian philosophy of the mind, reason mediates between the sensitive soul and the intellect, Van Helmont places reason entirely within the sphere of the sensitive soul, so much so that he says that it would be blasphemous to identify reason with the ‘image of God’.¹²⁵ He argues that reason cannot be part of the intellective soul, nor can it act as the messenger between the intellective and sensitive soul, since ‘reason is not in the intellect, but outside the intellect; from which I concluded that reason is not as highly respectable as has been thought, for in animals, too, there is reason and reasoning.’¹²⁶

As we shall see in the following chapters, the relationship between the mind and the imagination represents a crucial aspect of Van Helmont’s philosophy and medicine. In the *Ortus medicinae*, he argues that ‘our mind is completely unable to understand through the imagination.’ Certainly, it cannot think ‘through figures or images, unless it follows the pitiable and wretched

¹²² Ibid., § 7, p. 254: ‘Verum ut mens est in nobis, nec tamen a nobis sentitur: ita ejus continuae et inconcussae operationes sunt insensibiles.’

¹²³ Ibid., § 26, p. 258: ‘in tota rerum scena, nulli est homini potestas perniciosior voluntate libera, quippe quae sola omne parit dissidium inter Deum et hominem.’

¹²⁴ Van Helmont, ‘Van reden en verstandt’, in *Dageraad*, p. 18: ‘soo dachte ick dan dat de maeckster der bewysingen, de reden, besit het middendeel tusschen de sinnen, en het verstandt, te weten in ’t dierlijk verstand, ’t welck is de verbeeltenis, oft imaginatie’. See ‘Venatio scientiarum’, § 20, in *Ortus medicinae*, p. 22: ‘Tum denique cognovi, quod neque sensus syllogismum conderet: sed quod ratio demonstrationum formatrix, possideret animale intellectum, sive imaginationem, mediam inter sensus, et intellectum.’ On the relationship between internal and external senses, see Park, ‘The organic soul’, pp. 470-1.

¹²⁵ Van Helmont, ‘Imago mentis’, § 30, in *Ortus medicinae*, p. 259.

¹²⁶ Van Helmont, ‘Van reden, en verstandt’, in *Dageraad*, p. 21: ‘dat die reden niet en is in den verstande, maer buyten ’t verstandt; des ick bevestighde dat de reden niet en is soo hooghachtbaer, als men hadde vermeynt; dat in de dieren reden ende discours is.’

discourse of reason.¹²⁷ On the other hand, he is willing to admit that '[a]s far as the image of God is concerned', he has never been able to 'conceive anything, not even in the abstract meditation of the intellect, which does not display with the same activity some figure, by which it would be represented in the considering person.'¹²⁸ Van Helmont makes a distinction between images coming from the imagination (in Dutch, *beelden der verbeeltenisse*), as in the first quotation, and images coming from the intellectual imagination (*verstandelijcke verbeeldinge*) entering the soul via visions and dreams.¹²⁹ It is through this kind of intellectual vision that he himself had access to his own *beeldt Gods*. Van Helmont recounts that he experienced such visions twice in his life, in 1610 and, 23 years later, in 1633. The description of these visions is more detailed in the *Ortus medicinae* than in the *Dageraad*. In the latter he recounts how the light coming from these sudden epiphanies of intelligible knowledge managed to dispel the deceiving power of rational images.¹³⁰ In the *Ortus medicinae*, he characterises his visions in Latin as something 'beyond what can be thought and can be expressed with words'; in the Dutch version he simply mentions the length of the visions: the first one, he says, was 'not much longer than the time it takes to utter four syllables.'¹³¹ Once again, the Latin version shows in Van Helmont a deeper engagement with Platonic views on the relation between truth, image and word.

As images of God, human souls are in a way closer to their Creator than angels. Angels, Van Helmont points out, are mere 'mirrors' (*specula*) of divine perfection, whereas human beings are 'images' (*imagines*) of it. The question then becomes: What kind of relationship exists between God's intellect and the human intellect? This question is all the more important, as, in Van Helmont's opinion, we cannot establish any similarity between God and the soul, because God cannot be understood by us, nor can we perceive our own soul with the senses of the animal soul.¹³² Simultaneously, the soul in the condition of absolute unity - the 'colliquament' of intellect, will and love - cannot be known nor described with words, it can only be *experienced* in states of ecstatic rapture or intellectual vision. The role of the imagination is, however, not entirely ruled out because, first (as we know), the soul is in fact an 'image' of God, and second, knowledge, even intellectual knowledge, is accompanied by images that work as shadows of the

¹²⁷ Van Helmont, 'Imago mentis', § 12, in *Ortus medicinae*, p. 254: 'mens nostra nequicquam intelligat per imaginationem, nec demum per figuras, aut imagines, nisi miser atque aerumnosus vacillantis rationis discursus accesserit.'

¹²⁸ Ibid., § 15, p. 256: 'Quod autem ad Dei imaginem spectat, nil potui unquam concipere, ne quidem in abstracta intellectus meditatione, quod non eadem opera, aliquam prae se ferret figuram, sub qua staret in considerante.'

¹²⁹ Van Helmont, 'Van reden, en verstandt', in *Dageraad*, p. 22.

¹³⁰ Ibid., 'Van reden, en verstandt', pp. 18-22.

¹³¹ Van Helmont, 'Imago mentis', § 13, in *Ortus medicinae*, p. 256: 'Quia vidi, quod superat cogitatum verbo exprimibilem'; Id., 'Van reden en verstandt', in *Dageraad*, p. 18: 'dit licht en werde in my niet veel langer, dan iemandt mochte vier syllaben spreecken.'

¹³² Van Helmont, 'Imago mentis', § 22, in *Ortus medicinae*, pp. 257-8; Id., 'Van de ziele, en beeldt Godts', in *Dageraad*, p. 30-1.

intelligible light. Van Helmont's perception of his own soul appeared in the form of a vision, as a kind of intellectual imagination (*verstandelijke verbeeldinge*). Can these reliable images of internal experience be translated into reliable representations of external experience, and then into words? Once again, the way Van Helmont links his theory of knowledge to knowledge of nature can be described as a chain of mediations within a complex and multi-layered universe of translations: from the unfathomable unity of God's word (*verbum ineffabile*) to the image of God in the human mind (*het beeldt Gods/imago Dei*) to the primordial representation of reality within the soul (*inval/obiectum*) and, finally, to words (*verba*), vernacular, first, and then Latin.

We have seen that Van Helmont's most valued ideas are called *inval* or *obiecta*, which come directly from God. These ideas are received as objects of representation and need to be put into words to be communicated. One's mother tongue is the most suitable means of communication, since this language has been 'embodied and ensouled' in the person from the start. This process of verbalisation of the *inval* occurs in the *gemoedt* or *mens*, where all processes of thinking and reflection take place. An active translation process into a foreign language would subsequently happen in the intellect, outside the embodied path of verbalizing in the mother tongue. And although reason cannot play a role in the translation into foreign languages, for reason is only active in the sensitive soul, the truth is nevertheless concealed and weakened as a result of the translation, and alienated from the pure and wholly spiritual concept of the first notion (i.e., *inval*). The concept of 'colliquation' is integral both to his theory of the mind and his philosophy of language and shows among other things that language is a purely human characteristic in contrast to animals, since the translation processes take place in the intellective soul.

CHAPTER 2: Van Helmont's Languages

*Ick schrijve dit in mijn vaderlandtsche tael,
op dat mijnen naesten in 't gemeyn daer af geniete,
verstaende dat de waerheyt nergens naeckter en verschijnt,
dan daer sy van alle cieraet ontbloot is.*

Jan Baptista van Helmont¹

Both the *Ortus medicinae* and the *Dageraad* were conceived by Van Helmont as medical works. Not only do their titles refer to the daybreak or rise of new medicine, but the introductory letters also address practitioners of medicine, and are geared towards treating the ill. At the same time, the content of Van Helmont's books covers much wider grounds than we would now expect from a medical book. Apart from Van Helmont's views on the mind and language, the *Dageraad* opens with a chapter on time – which is included in the *Ortus medicinae* as 'De tempore' – in which he tries to understand the connection between the movements of the planets and the progress of time on earth.² From there he takes his readers on a well-guided tour through his worldview, tracing a passage from the soul as the image of God to the principles of physical life, with the final section of the *Dageraad* focussing on one disease, the plague. The *Ortus medicinae* is not as well structured as the *Dageraad*, but covers even more topics, and includes two more treatises on specific diseases: fevers and gall and bladder stones.

The previous chapter discussed Van Helmont's theory and philosophy of language in the context of his philosophy of the mind and against the backdrop of contemporary discussions about the use of language in science. This chapter investigates Van Helmont's practical application of his languages, which, as we shall see, does not always exactly conform with his theory. To analyse Van Helmont's use of language, we shall discuss three concepts that are central to his medical theory – *gas*, *blas* and *archeus* – and two broader topics on which Van Helmont wrote substantially – alchemy and the plague. These concepts and topics have been examined by Van Helmont in both Dutch and Latin. In this chapter, therefore, I compare Van Helmont's use of the two languages in both its theoretical and practical aspects.

¹ Jan Baptista van Helmont, 'Aen de Oeffenaers der Geneeskunst', in *Dageraad*, sig. **3r: 'I write this in my mother tongue [literally: 'language of my father land'], so that all my neighbours can enjoy this, understanding that the truth nowhere appears more naked than where it is stripped of all adornment.'

² Van Helmont, 'Eerste Pael: Van tijdt, duringe, oft weringe', in *Dageraad*, pp. 1-15; id., 'De tempore', in *Ortus medicinae*, pp. 593-604. For literature on this chapter: Walter Pagel, 'J. B. van Helmont, *De Tempore* and Biological Time', *Osiris* VIII (1948), pp. 356–417; and Helene Weiss, 'Notes on the Greek Ideas referred to in Van Helmont, *De Tempore*', *Osiris* VIII (1948), pp. 418–49.

Terminology: Dutch to Latin, Latin to Dutch

For Van Helmont the beginning of knowledge – its ‘daybreak’, or *dageraad* – is, first and foremost, in the innermost part of one’s soul, the intellect or mind. And since individual souls articulate internally their thoughts through their mother tongues, the vernacular represents the most faithful rendering of one’s ideas and notions. As a result, Van Helmont’s own ‘daybreak’ happened first in Dutch. He then must have realized that to make his work accessible to a wider audience, a translation from Dutch into Latin was needed. We thus have two directions of translation: the one is from Latin into Dutch, with university learning traditionally expressed in Latin being assimilated into a vernacular idiom; the other is from Dutch into Latin, with intellectual visions articulated in the vernacular shared with a larger number of readers through the use of the *lingua franca*.

As we have seen so far, Van Helmont employed different levels of translation in his work: an ontological one, dealing with the expression of the ineffable image of God, which is the very core of the human soul; an epistemological one, relating to the process through which ideas are transformed into words; and, finally, a genuinely linguistic level, concerned with the translation of knowledge acquired in the vernacular into Latin. As a good Platonist and a Christian mystic, Van Helmont is convinced that one loses part of the purity and truth of the first *inval* by translating it into a foreign idiom. For this reason, one would expect, following Van Helmont’s reasoning, to encounter significant differences in style and meaning between the *Dageraad* and the *Ortus medicinae*, with Latin being less clear, less comprehensible, or written in a simpler style, than one would expect from someone who is writing in a foreign language. A clear case is that of Baruch Spinoza (1632-1677), whose Latin is indeed plain and uncomplicated.³ In fact, this is not the case with Van Helmont. As far as I have been able to assess by comparing the two works, I can only conclude that the level of complexity in the language and in the style is very similar in both the Dutch and Latin versions. Regardless of whether the text is written in Dutch or Latin, Van Helmont’s style is dense, and difficult to understand at first reading in either language, for in both cases he uses a very similar syntax, which is more appropriate for Latin than for Dutch and makes the Dutch especially hard to follow. His elaborate and extensive use of cases in Dutch was perceived as an archaism already at the time, but allowed him to place the

³ Dutch, too, was a foreign language for Spinoza (Hebrew and Portuguese being his first languages), as he made clear in a letter to Blyenbergh in Dutch: ‘ik wenschte wel dat ik in de taal, waar mee ik op gebrocht ben, mocht schryven. ik sow mogelyk myn gedachte beeter konnen uytdrukke (I wish I could write in the language in which I was raised. I could possibly express my thoughts better).’ See Benedictus de Spinoza, *Opera*, ed. by Carl Gebhardt, 5 vols, Heidelberg 1924-1987, IV, p. 95. For Spinoza and his language see also: J. H. Leopold, ‘Le langage de Spinoza et sa pratique du discours’, in *Spinoza to the Letter: Studies in Words, Texts and Books*, ed. by Fokke Akkerman and Piet Steenbakkens, Leiden and Boston 2005, pp. 9-33; and Iiro Kajanto, ‘Spinoza’s Latinity’, in *Spinoza to the Letter*, pp. 35-54.

words within the sentences almost as freely as in Latin.⁴ With respect to the way in which Van Helmont translated Latin terminology into Dutch, we need to examine to what extent he was translating from his mother tongue into Latin, and vice versa.

More importantly, we should distinguish between the translation of words and the definition of new concepts. As mentioned above, Van Helmont seems to have introduced neologisms when he had to refer to new concepts, as is the case with his famous terms *gas* and *blas* (see below). However, he also applied the third category outlined by Saskia Bogaart, that of loan meanings, or the use of established words with new meanings. Van Helmont follows this linguistic strategy in his use of the word *pael*, which in the *Dageraed* stands for the ‘post’ that divides one section of the book from another. In his second dedicatory letter to ‘the practitioners of medicine’, Van Helmont explains his use of *pael*:

I divide this book with posts, like fences around gardens, not with chapters, or heads [*capittelen, oft hoofden*], since this book has only one head: mine. Many heads have conflicting opinions, and in an animal they express a failure in creation. Thus I am writing new things, since the arts are growing on a daily basis, and the abyss of all knowledge has not been exhausted by other people.⁵

In the *Ortus medicinae* he uses the Latin equivalent *columna*, but only to divide the three parts within the section ‘Promissa authoris’; throughout the rest of the *Ortus medicinae* no specific word is used to distinguish chapters or to separate parts from headings.⁶ *Columna* seems to be a translation from Dutch into Latin, especially because neither *pael* nor *columna* are common terms for the division between sections of a book.⁷ Van Helmont explains why he does not use the word *capita* (or, in Dutch, *hoofdstuk*, itself derived from *hoofd*, ‘head’) for ‘chapter’, ‘since this book has only one head: mine’.⁸ In this way, he emphasizes the fact that he sees himself as the sole author of the book and he distances himself from the scholastic method of repeating the opinion of previous authors on a subject, divided into theses for and against a specific point.

⁴ On the use of cases in sixteenth- and seventeenth-century Dutch, see: Marijke Mooijaart and Marijke van der Wal, *Nederlands van Middeleeuwen tot Gouden Eeuw: Cursus Middelnederlands en Vroegnieuwlands*, Nijmegen 2008, pp. 53-6.

⁵ Van Helmont, ‘Aen de Oeffenaers der Geneeskunst’, in *Dageraed*, sig. [*4]r: ‘Ick sचेyde dit boeck met paelen, en afheyningen betuynt, niet door capittelen, oft hoofden, want dit boeck heeft maar een hoofd, ’t welck is het mijne. Veel hoofden hebben twistige sinnen, en in een dier betuygen een mis-gewas. Ick schrijf dan nieuwe dingen, want the konsten groeyen daegelijcks, en alle wetentheys afgront en is den anderen niet uytgeput.’ This second dedication does not exist in the Latin text. The term *mis-gewas* has the underlying meaning of a crop that failed to develop in the right way, and is therefore wasted. It is only very rarely used in the context of animals, as an expression of a failed creation. See ‘gewas’, in *WNT*.

⁶ Jan Baptista van Helmont, ‘Promissa authoris’, in *Ortus medicinae*, pp. 6-12.

⁷ Van Helmont could have chosen *palus* for the translation into Latin, but uses the word *columna* instead.

⁸ See footnote 5.

To use the word *pael* to indicate the section of a book is very peculiar in Dutch. I have not been able to find any other author using the word in this context.⁹ Before we can translate it into an English term, we have to understand Van Helmont's concept of *pael*. He wants to surround his sections and subjects by *paelen*, like one separates one's garden from the next. At the same time there is one *pael* per section or subject, or even stronger, one *pael* is equal to the discussion of one subject, as we can see from the following quotation:

but because this is a new law, unknown to any of the schools, it is very hard to distance oneself from the old absorbed doctrines ... hence, it is not unreasonable to start a new chapter here (*soo en is 't niet onbilligh hier eenen pael te stellen*).¹⁰

By dividing his arguments into *paelen*, he seeks to avoid more damage from happening to the science of medicine than has been inflicted until that point by the 'schools' (that is, by universities and academics). He is presenting his work in digestible portions, separating them in sections and guiding his readers through the topics in the right direction. The *Dageraed* is clearly built up as a developing idea, in which Van Helmont often refers back to previous sections as to show the progress he has made. To combine the two meanings of *pael*, I have decided to translate the word with 'post', a post that both separates and gives directions. The Latin counterpart chosen by Van Helmont – *columna* – preserves somehow the semantic richness of the original.

In the rest of this chapter I shall discuss three specific terms that were used by Van Helmont – *gas*, *blas* and *archeus* – in order to test the scope of his linguistic resources and explorations. *Gas* and *blas* are neologisms, *archeus* is borrowed from Paracelsus. I shall then examine Van Helmont's uses of these terms in Latin and Dutch. As these are words that denote complex and idiosyncratic concepts, I shall first explain their meaning and provide some historical contextualisation, and then compare their use in both the *Dageraed* and the *Ortus medicinae*. The chapter will end with a brief foray into two wider topics, alchemy and the plague, so as to assess Helmontian ways of arguing in action and the specific applications of his complex terminology. In this chapter I am proposing a pattern of inquiry that I shall then reuse in Chapter 5, where I investigate the reception of this particular set of terms by translators of Van Helmont's works in the second half of the seventeenth century.

⁹ *Pael* is mentioned in the WNT in the entries 'zes', 'zesde', and 'zestiende' in relation to the meaning of 'chapter'. The quotations here indicated all come from the *Dageraed*, which confirms my suspicion that Van Helmont is the only author using *pael* in this sense.

¹⁰ Van Helmont, 'Negende Pael: Van de Elementen', in *Dageraed*, p. 61: 'maer dewijl dit een nieuw geset is, en dat het ongehoort is aen alle Scholen, soo is 'et seer hart ten eersten sich selven van een oude ingesogen leere te ontkleeden ... soo en is 't niet onbilligh hier eenen pael te stellen.'

Gas and Blas: An Introduction

Among the distinctive innovations which mark out Van Helmont's use of language, both in Dutch and Latin, *gas* and *blas* stand as examples of neologisms. Before entering Van Helmont's world where 'gas' stands for a new concept with a new name, we should firstly disabuse ourselves of an understanding which equates it with 'gas' as we understand it now, referring to one of the four states of matter, the other three being solid, liquid and plasma. As we now know, matter can change between its states, as depicted in the simplified image below. To make the distinction clear between the current understanding of gas and Van Helmont's concept of *gas*, I shall italicize the latter throughout this thesis. It shall become clear that what we associate with the word today is derived from Van Helmont's concept. The difference in meaning between our gas and Van Helmont's *gas* might be illustrated best by the fact that he paired his concept with the now entirely forgotten concept of *blas*. Obviously our understanding of gas has completely shed the link to this now defunct Helmontian notion, so that in our minds mention of the word 'gas' does not trigger any association with *blas*. Nevertheless, for Van Helmont these two concepts were equally important. Since then, however, the concept of gas has undergone far-reaching changes which now make it quite distinct from Van Helmont's original ideas.

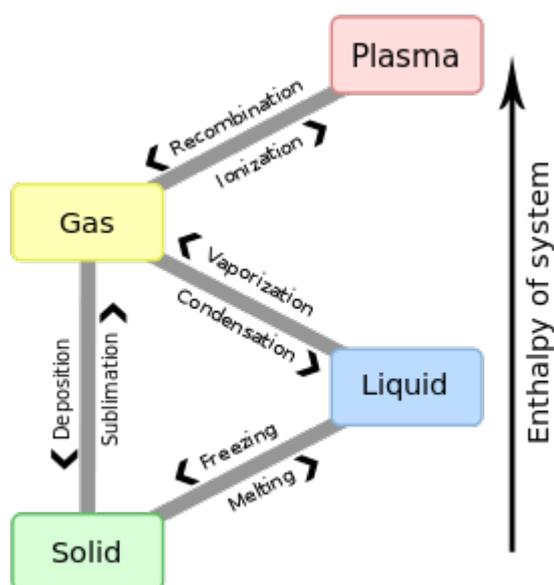


Figure 2: Today's understanding of the four states of matter considered within a specific thermodynamic system ('enthalpy').

The fact that Van Helmont coined neologisms for these concepts indicates that he wanted to signify original and defining aspects of his natural philosophy, in this case, a specific kind of aerial substance (*gas*) and the principle of change and motion in the universe (*blas*). *Gas* and *blas*

are also at the centre of terminological clusters of characteristically Helmontian words, with clear influences and borrowings from the Paracelsian language, both in German and Latin, such as ‘magnale’, ‘chaos’, ‘mercury’, ‘salt’ and ‘sulphur’, not to mention the *vis enbormontica*, reminiscent of the Hippocratic ‘impetum faciens’ (*to enbormon*).

In Van Helmont’s physics, water is the original material element.¹¹ Water can become *gas* or vapour, depending on the level of temperature (cold or hot). Despite some significant differences, we can say that, by and large, Van Helmont follows Paracelsus’s view about the fundamental constituents of material reality, that is to say, ‘all bodies are made up only of three principles [salt, sulphur and mercury], and not of elements, for elements are not bodies, but places (*loca*) and empty wombs of bodies and principles (*matrices corporum sive principiorum*), devoid of any body.’¹² Crucially, Van Helmont rejects the Aristotelian and scholastic view of air as an element that is moist by its very nature (*per se humidus*) and that can be described as dried-up water (*aqua exsiccata*). According to Van Helmont, all forms of vapour and exhalation in nature derive not from air, but from water, which, as already said, is the universal material substratum from which all corporeal entities originate. A key difference between water and air is that, while water does not tolerate a vacuum, air cannot exist without presupposing forms of vacuities among material ‘minima’ (or atoms), so that air can be dilated and contracted. Water and air are therefore ‘two stable elements, which differ from each other because of their nature and properties, and it is impossible for the one to be transformed into the other.’¹³ It is important to remember here that Van Helmont uses the narrative of Genesis as a template to explain the origin and nature of the elements. No mention of the creation of air can be found in the Bible, but Van Helmont argues that the heavens can be equated to the element air.¹⁴ In his opinion, the heavens or air are the ‘separator’ of the waters, i.e., the principle that divides the waters of the earth from the waters in the sky. In so doing, Van Helmont refers to the Bible to demonstrate that air cannot be moist by its very nature. After all, God sent winds to dry up the surface of the earth after the universal flood. Earth, finally, is not a proper element but the ‘fruit’ of water.¹⁵

In Van Helmont’s view of nature, *gas* and *blas* have various meanings, depending on the context in which they appear. In the *Dageraed* and throughout the *Ortus medicinae*, one can find cosmological, physical, anatomical, even demonological meanings of *gas* and *blas*. Van Helmont

¹¹ For more on the four elements and the three principles in Van Helmont’s physics, see Pagel, *Van Helmont*, pp. 49-60.

¹² Van Helmont, ‘Progymnasma meteori’, § 30, in *Ortus medicinae*, p. 69: ‘Nimirum, quod corpus unumquodlibet tribus tantum constet principiis, non autem elementis. Eo quod elementa non essent corpora, sed loca et inanes matrices corporum, sive principiorum, corporis omnis expertes.’

¹³ *Ibid.*, § 1-4, p. 64.

¹⁴ Van Helmont, ‘Gas aquae’, §§ 2-3, in *Ortus medicinae*, pp. 70-71.

¹⁵ Van Helmont, ‘Progymnasma meteori’, § 13, in *Ortus medicinae*, p. 66: ‘Chymicis sit in documentum, Terram, licet prima constitutione creatam, proprie tamen saltem fructum esse aquae.’

justifies the introduction of the two new words by pointing out that the notions to which they refer were previously unknown. ‘The race (*prosapia*) of the vital spirits was not entirely known yet. No one before had learnt in an experimental way that water was the matter of gas, nor was it known that the winds of the world were different from the vital spirit.’¹⁶

Blas

As already mentioned, the meaning of *blas* is more complicated than that of *gas*, while its later fortunes amount almost to nothing. Van Helmont presents the related terms as follows:

‘Gas’ and ‘blas’ are indeed new names. I have introduced them, because their knowledge was unknown to the ancients. Nevertheless, *gas* and *blas* occupy a necessary place among the principles of nature.¹⁷

The quotation is from the chapter dealing with *gas aquae*, the ‘gas of water’ in the *Ortus medicinae*. While in the *Dageraed*, the account of the two principles of nature is neatly organized in one chapter, in the *Ortus medicinae* the analysis is presented in a meandering fashion throughout several short treatises, with a number of digressions and repetitions.¹⁸ In this respect, the two accounts are indicative of a main difference between the two works: the *Dageraed* is a self-contained book planned as such from the very beginning, while the *Ortus medicinae* is a collection of several tracts of a different nature assembled by Van Helmont’s son, Francis Mercury, after the death of his father.

Of the two terms *gas* and *blas*, there is no doubt that the word ‘gas’ has had the longer afterlife, both linguistically and conceptually.¹⁹ Van Helmont’s invention of the term *gas* has been adopt-

¹⁶ Van Helmont, ‘Vacuum naturae’, § 3, in *Ortus medicinae*, p. 84: ‘Nondum enim plane enotuerat spirituum vitalium prosapia. Nemo enim antehac materiam Gas aquam esse experimento didicerat, adeoque ventos mundi a spiritu vitali penitus discrepare nondum scitum erat.’

¹⁷ Van Helmont, ‘Gas aquae’, § 1, in *Ortus medicinae*, p. 70: ‘Gas et Blas nova quidem sunt nomina, a me introducta, eo quod illorum cognitio veteribus fuerit ignota. Attamen inter initia physica, Gas et Blas, necessarium locum obtinent.’

¹⁸ Van Helmont, ‘Tiende Pael: Der Elementen en Meteoren rechte kennisse’, in *Dageraed*, pp. 83-106, esp. p. 90 (Gas), and p. 103 (Blas). See also ‘Gas aquae’, in *Ortus medicinae*, pp 70-7; ‘Blas meteoron’, *ibid.*, pp. 77-9; ‘Blas humanum’, *ibid.*, pp. 171-83.

¹⁹ A good number of studies are focused on Van Helmont’s gas, but none on blas. On ‘gas’ and ‘blas’, see: Allen G. Debus, *The Chemical Philosophy: Paracelsian Science and Medicine in the Sixteenth and Seventeenth Centuries*, 2 vols, New York 1977, II, pp. 314-7, 341-2; Guido Giglioni, ‘Per una storia del termine ‘gas’ da Van Helmont a Lavoisier: Costanza e variazione del significato’, *Annali della Facoltà di Lettere e Filosofia dell’Università di Macerata XXV-XXVI* (1992-1993), pp. 431-68; William R. Newman, *Gehennical Fire: The Lives of George Starkey, an American Alchemist in the Scientific Revolution*, Cambridge and London 1994, pp. 110-4; Pagel, ‘The “Wild Spirit” (Gas) of John Baptist van Helmont (1579-1644) and Paracelsus’, *Ambix* X (1962), pp. 1-13; Pagel, *Van Helmont*, pp. 60-70, 87-95.

ed in fifty languages, including Dutch.²⁰ However, in the second half of the seventeenth century, both concepts were still perceived as incomprehensible by some. In Margaret Cavendish's novel, *The Blazing World* (1666), for instance, the character of the Empress is not convinced by the new, trendier explanation of thunder and lightning based on gaseous exhalations and the *blas*:

Lastly, the Emperess asked the Bird-men of the nature of Thunder and Lightning? and whether it was not caused by roves of Ice falling upon each other? To which they answered, That it was not made that way, but by an encounter of cold and heat; so that an exhalation being kindled in the Clouds, did dash forth Lightning, and that there were so many rentings of Clouds as there were founds and Cracking noises: But this opinion was contradicted by others, who affirmed that Thunder was a sudden and monstrous blas, stirred up in the Air, and did not always require a Cloud; but the Emperess not knowing what they meant by blas (for even they themselves were not able to explain the sense of this word) liked the former better.²¹

Samuel Parker, while discussing the nature of definitions in his *Free and Impartial Censure of the Platonick Philosophie* (1666), chose 'blas' and 'gas' as instances of 'the vanity of Metaphysical definitions', when these are used 'in order to the discovering the hidden Essences of things.'

Names themselves give me no more knowledge of those things, then *Gas* and *Blas* or any other words of no defined signification.²²

Robert Boyle in his account of corpuscular and mechanical philosophy in *The Excellency of Theology* (1674) uses 'gas' and 'blas' as examples of words opposite to 'the Intelligibleness or Clearness of Mechanical Principles and Explications' he is aiming at:

The *first* thing that I shall mention to this purpose, is the Intelligibleness or Clearness of Mechanical Principles and Explications. I need not tell you, that among the *Peripateticks*, the Disputes are many and intricate about *Matter*, *Privation*, *Substantial Forms*, and their *Education*, &c. And the *Chymists* are sufficiently puzzled, (as I have elsewhere shewn,) to give such definitions and accounts of their Hypostatical Principles, as are reconcileable to one another, and even to some obvious *Phaenomena*. And much more dark and intricate are their Doctrines about the *Archeus*, *Astral Beings*, *Gas*, *Blass*, and other odd Notions, which perhaps have in part occasion'd the darkness and ambiguity of their

²⁰ Nicoline van der Sijs, *Nederlandse woorden wereldwijd* (The Hague 2010), pp. 154-5, 312; see also the article by Sander Becker, 'Het Nederlands reist de hele wereld rond', published in the newspaper *Trouw* 8-11-2010.

²¹ Margaret Cavendish, *The Description of a New World, Called the Blazing World*, London 1666, p. 25. See also Stephen Clucas, 'Margaret Cavendish's Materialist Critique of Van Helmontian Chymistry', in *Ambix* LVIII.1 (2011), pp. 1-12, for more critical notes on Van Helmont's obscure language.

²² Samuel Parker, *Free and Impartial Censure of the Platonick Philosophie*, Oxford 1666, p. 63.

expressions, that could not be very clear, when their Conceptions were far from being so.²³

Van Helmont uses the word *blas* in both Dutch and Latin as an indeclinable noun. The etymology of the word ‘blas’ seems to go back to the Dutch verb ‘blasen’, ‘to blow’. ‘Blas’ is mentioned in the *Woordenboek der Nederlandsche Taal* as ‘common in the sixteenth and seventeenth centuries for breath, the blowing of people and blowing of the wind.’²⁴ Simon Stevin gives ‘blas’ (including two translations: ‘Soufflement, Flatus’, i.e. ‘wind, breeze’) as an example of a monosyllabic word which shows the excellence of the Dutch language.²⁵ The English 1662 translation of the *Ortus medicinae* by John Chandler leaves ‘blas’ without translating it, which makes for complicated reading, since ‘flatus’ is translated as ‘blast’. In his 1683 German translation of Van Helmont’s works, Christian Knorr von Rosenroth promptly commented on the passage where the two terms had been introduced, and explained: ‘The words *gas* and *blas*: that is, a subtle water exhalation, like a spirit, and a subtle breath or wind, a turbulence or emanation from the stars.’²⁶ After this introductory explanation, he translates ‘blas’ in different ways, for example as *Sternen-Blast* (‘blas of the stars’), *Witterung* (‘weather’), and *Ausblasen der Sternen* (‘exhalation of the stars’).²⁷ The French translator prefers to leave ‘blas’ untranslated.²⁸ To be sure, the fact that the translators either stick to Van Helmont’s neologism or translate ‘blas’ with a variety of words, testifies to the complexity of the concept. The ‘Key to uncover the most obscure meanings’, written by Michael Bernhard Valentini, the editor of the 1707 *Ortus medicinae*, gives the following explanation for ‘Blas’:

‘Blas’ means for Helmont the power – both alterative and local - of the motion of the Archeus and the stars, such that through the former it seems to indicate the light

²³ Robert Boyle, ‘About the Excellency and Grounds of the Corpuscular or Mechanical *Philosophy*’, in *The Excellency of Theology*, London 1674, p. 5; id., *Works*, ed. by Michael Hunter and Edward B. Davis, 14 vols, London 1999-2000, VIII, p. 104.

²⁴ See *WNT*, s.v. ‘blas’. The same etymology has been suggested by Feliks Lachman, ‘Van Helmont’s Gas’, *The Modern Language Review* XLVIII (1953), p. 177-8, although I do not agree with his description of *blas* (it is no fluid) and his analogy between ‘gas’ and ‘blas’ as being both inspired by the Gospel of Saint John.

²⁵ Simon Stevin, *Wisconstighe gedachtenissen. Deel 1: van ‘t weereltschrift*, Leiden 1608, p. 29. On Stevin and his theories on Dutch, see the previous chapter.

²⁶ Van Helmont, *Aufgang der Artzney-Kunst*, tr. by Knorr von Rosenroth, Sulzbach 1683, p. 109: ‘Die Wörter Gas und Blas (das ist ein subtiler Wasser-Dunst, wie ein Geist; und ein subtiler Blast oder Wind, Erregung oder Einflussung von dem Gestirne).’

²⁷ Van Helmont, ‘Von dem subtilsten Dunst des Wassers’, in *Aufgang*, tr. by Knorr von Rosenroth, pp. 109-17.

²⁸ Van Helmont, ‘Du Blas humain ou du mouvements du coeur et des arteres’, in *Les oeuvres de Jean Baptiste van Helmont*, tr. by Jean Le Conte, Lyon 1670, pp. 187-97. In the chapter on the prime mover (‘Du premier moteur’, pp. 65-6), Le Conte does not mention *blas* at all, but keeps referring to ‘ce glorieux moteur’ when in fact the astral *blas* is in the original Latin.

impulse of the spirits, through the latter the powerful influence of the stars, whether by means of their exhalations or by pressing the air globules in various ways.²⁹

Combining Van Helmont's explanations from the *Dageraed* and the *Ortus medicinae*, we can determine the following characteristics of *blas*. First of all, there are two kinds of *blas*, the *blas* of the stars (*blas astrorum*) and the human *blas* (*blas humanum*). The first is an energising power that comes to us through the stars and causes strong winds by stirring the air and waters following a variety of bad weather patterns (*onweders*).³⁰ The cosmological meaning of *blas* is perhaps the more important, being closely connected with the creation of the world. In Van Helmont's natural philosophy, motion in the strictest sense is self-motion, for it is a vital property introduced in the world by God at the beginning of the creation:

Since no being could exist by moving itself (with the exception of the *archeus* through the seeds), the eternal God decided to place an enhormontic power within the stars, not very different from the command of our mouth. In this way, *blas* is for us a proof that God, out of His extraordinary goodness, created the elements and the stars for our sake, measuring their boundaries in view of our advantage.³¹

Through the stars, *blas* has control over earth, air and water.³² Winds, in particular, are 'blowing air, moved by the astral blas'.³³ Within the category of cosmological *blas* (*Blas astrorum*), Van Helmont distinguishes between two varieties, one in charge of regulating the local motion of the universe (*Blas motivum*), the other supervising changes of heat and cold (*Blas alterativum*).³⁴ 'The alterative blas consists in the production of heat and cold, and this happens especially through

²⁹ Michael Bernhard Valentini, 'Clavis ad obscuriorum sensum reserandum', in *Ortus medicinae*, sig. F2r. 'BLAS *Helmontio* vim motus Archei et Astrorum, tam alterativam quam localem denotat, ita ut priori blandum spirituum impetum, posteriori vero astrorum influxum, sive exhalando, sive globulos aereos varie premendo efficacem exprimere videatur.'

³⁰ Van Helmont, *Dageraed*, p. 103: 'De sterren dan hebben hier toe tweederhande beroerten, d'eene is de stedelijcke beroerte, en de tweede is de veranderinge oft anderheyt, maecdende de stedelijcke roeringe, die ons door 't gesternte voortkomt, is een drijvende macht, die wy Blas heeten, en streekt grootelijcks tot winden, en drijvende locht, beroerende dan locht en wateren met verscheyde onweders.'

³¹ Van Helmont, 'Blas meteoron', § 5, in *Ortus medicinae*, p. 77: 'Cumque autem nihil seipsum esset movendo (excepto seminibus dato Archeo) complacuit sibi Aeternus, collocare in stellis enormonticam motivam vim, mandato oris nostri non valde absimilem. Ita ut Blas testimonio nobis sit Deum, sua praepollenti Bonitate, elementa ac stellas pro nobis fecisse, horum fines juxta commoditates nostras dimetiendo.' The adjective *enormonticus* is a Hippocratic term, referring to the vital principle (*to enbormon*), also known in the Latin tradition as *impetum faciens*. See Van Helmont, 'Vacuum naturae', § 1-2, in *Ortus medicinae*, p. 80.

³² Van Helmont, 'Blas meteoron', § 5, in *Ortus medicinae*, p. 77: 'Blas ergo, ut masculum in stellis, est motus initium generale; non minus terram quam aerem atque aquam spectare videtur.'

³³ *Ibid.*, § 4, p. 81: 'ventum dico fluentem aerem, motum per Blas stellarum.' See also 'Vacuum naturae', § 1, in *Ortus medicinae*, p. 83.

³⁴ Van Helmont, 'Blas meteoron', § 14, in *Ortus medicinae*, p. 79: 'Duplex est ergo Blas motivum locale in aere. Unum quidem, quod ventos concitat, adeoque violentiam et celeritatem includit, ex nativa potestate motuve. Aliud vero, quod consequitur ad Blas alterativum, propter condensationem aut rarefactionem in aere.'

the changes of the winds.³⁵ As already mentioned, air is in itself devoid of motion and it is an inert medium, the *aquarum separator*.³⁶ The astral *blas* has the function of controlling the development of meteorological processes through the motions of the *gas*. The atmosphere (*aer* or *coelum*) mirrors the earth (*terra*) in its structure. Just as there are layers within the earth, so there are strata in the sky, which Van Helmont calls ‘peroledi’, adopting yet another Paracelsian word. The strata in the sky contain various quantities of *gas*, accumulated there as a result of processes of thinning and evaporation of water. By means of winds and air currents directed by the astral *blas*, the *gas* ‘is resolved again into vapour and then into rain’.³⁷

Not unlike the earth, the air has its own depths (*fundi*), which the Adepti [i.e., followers of Paracelsus] call ‘peroledi’. The invisible gas is hosted in various layers of the air. If there are the abysses and gulfs of water, its gates are in the peroledi, which the experts have called the waterfalls (*cataractae*) and gates (*valvae*) of the sky. For gas, when it falls from the depth of the sky into the area of the clouds, is not carried without the directive principle (*director*), *blas*. Indeed, it falls only passing through layers and orderly gates. The planets do not open all their gates randomly, but each of them is the key-holder (*clavigerus*) of its own peroledus through its own *blas*.³⁸

Van Helmont recommends astrologers to study the meteorological phenomena using this explanatory pattern. They would undoubtedly discover ‘a rich material’.³⁹ Storms and floods depend on the opening and closing of the heavenly gates with the *blas* acting as a ‘key’: ‘Sometimes winds rush down perpendicularly and hit the ground, while other winds come out laterally from other gates, and they destroy buildings and trees, besides inflicting upsetting

³⁵ Van Helmont, ‘Blas meteoron’, § 6, in *Ortus medicinae*, p. 78: ‘Blas alterativum in productione caloris atque frigoris consistit; idque praecipue cum ventorum mutationibus.’

³⁶ *Ibid.*, § 4, p. 77: ‘Aer ergo, nisi Blas habeat, quietus manet, nec motus principium a seipso habet.’ See *ibid.* § 8, p. 78: ‘Siccitas quoque in aere aquarum separatore erat ante stellas.’

³⁷ Van Helmont, ‘Gas aquae’, § 26, in *Ortus medicinae*, p. 74a: ‘Unde Gas mox in vapore rursus resolvitur, ac dein in pluviam.’ See also ‘Blas meteoron’, § 11-12, in *Ortus medicinae*, p. 78.

³⁸ Van Helmont, ‘Gas aquae’, § 25, in *Ortus medicinae*, p. 74: ‘Habet ergo aer suos, non minus quam terra, fundos, quos Adepti vocant Peroledos. Invisibile itaque Gas variis aeris stratis hospitatur, si aquae sua sint barathra, suae voragine, suae portae sunt in Peroledis, quas periti cataractas coeli et valvas dixere. Neque enim Gas, ex profunditate coeli decidens in locum nubium sine direttore Blas fertur. Imo non nisi per strata atque ordinatas valvas decedit.’ Almost completely similar in Van Helmont, ‘Tiende Pael: Der Elementen en Meteoren rechte kennisse’, in *Dageraed*, p. 98: ‘Soo dan se lucht in sijne onbeweeghlijckheid heeft sijne gronden oft lagen, die de Adepten noemen Peroledos des luchts, even gelijck d’aerde heeft haere verscheyden gronden. Dien volgende den onsielijcken gas wordt in verscheyde lagen des luchts geherbergh. En evengelijck tusschen Rost en Kouffoet in Gotlant is een diepte aller waeteren, soo zijn in de voorseyde laegen groote openheden, die sy noemen *Valvas*, & *Cataractas coeli*, sluysen en deuren des luchts, waer door desen gas valt uyt de diepte des luchts, in de plaetse der wolcken by de rijpheyte des daegen, en wordt aldaer stracks tot water geronnen.’

³⁹ Van Helmont, ‘Gas aquae’, § 25, in *Ortus medicinae*, p. 74: ‘Quod Astrologis meteororum indicariis examinandum suppono et spondeo divitem supellectilem inventuros.’

devastation on ships.⁴⁰ ‘Gas and blas have partitioned the whole commonwealth of meteorological phenomena into colonies’, says Van Helmont.⁴¹ The two principles are responsible for a large number of atmospheric events: ‘rain, showers, rain-storms, hail, snow, fog and frost are accidental changes derived from blas, both motive and alterative, in extremely cold places.’⁴² Connected to this is the fact that *blas* can be used by demons as a vehicle for their destructive and nefarious actions.⁴³

According to Van Helmont, stars indicate changes of time and weather. For this reason, he argues, they need ‘two kinds of motion, the one local, the other alterative. I denote both motions with the new name ‘blas’.⁴⁴ As already said, *blas* regulates the astral influences by opening and closing the gates of heaven (*valvae sese pandunt aut claudunt*) and as such it may be called the ‘key-holder’ of these gates (*valvarum claviger*). ‘These conditions in the stars cause the primary qualities in the lower bodies, just as in human beings shame, anger, fear and other passions provoke cold and heat.’⁴⁵ Stars are endowed with this pulsating force (*virtus pulsiva*), continues Van Helmont, as a result of a divine gift.

I am not concerned with the occasional causes of meteorological phenomena. It is sufficient for me to know that exhalations (*halitus*) rising from below, that is, vapour and gas, are the material cause of every meteorological phenomenon, and it is enough to know that *blas* is the efficient cause. In this I rely on the authority of the sacred scriptures: *Erunt vobis stellae in tempora, dies et annos*. This is therefore the aim of the restless vicissitude of water, that, like the winds, continuously going up and down, it may correspond to its astral blas.⁴⁶

It is important here to point out that Van Helmont uses *blas* as an argument against the Aristotelian notion of the unmovable mover (which he considers to be heretical), for God does not need to move anything in order to create and act upon what He created. Everything

⁴⁰ Ibid., § 26, p. 77: ‘Sic nempe venti quandoque perpendiculariter deorsum properant terramque feriunt, alias vero lateraliter valvas egrediuntur, aedes et arbores diruunt, ut etiam miserandam navigiis cladem inferunt.’

⁴¹ Ibid., § 22, p. 73: ‘Gas and Blas totam rempublicam meteori in colonias divisere.’

⁴² Ibid.: ‘Sic nimirum pluviae, imbres, nimbi, sic grando, nix, nebula et pruina, pro alteratione, per accidens, a Blas tam motivo, quam alterativo, locis frigidissimis, oborta.’

⁴³ Van Helmont, ‘Blas meteoron’, §§ 2-3, in *Ortus medicinae*, p. 77: ‘[Blas] cacodaemoni non raro datum, ut etiam sine Blas ventos cieat, vel Blas tempestuosum augeat.’ See also ‘Vacuum naturae’, § 1, in *Ortus medicinae*, pp. 80.

⁴⁴ Van Helmont, ‘Blas meteoron’, § 1, in *Ortus medicinae*, p. 77, ‘Quorsum opus habent duplici motu, locali scilicet, et alterativo. Utrumque autem, novo nomine Blas significo.’

⁴⁵ Ibid., §§ 2-3, p. 81: ‘Quae circumstantiae in stellis qualitates primas in haec inferiora causant, non secus atque in hominibus verecundia, ira, timor, etc. frigus et calorem concitant. Idque stellae ex dono creationis habent.’

⁴⁶ Van Helmont, ‘Gas aquae’, § 28, in *Ortus medicinae*, p. 74: ‘Non sum tam adeo de causis occasionalibus meteori anxius; sat mihi novisse halitum inferne surgentem, nimirum vaporem et Gas esse causam materialem omnis meteori. Causam effectricem sufficit Blas novisse, autoritate Sacrorum. *Erunt vobis stellae in tempora, dies et annos*. Hae igitur est aquae irrequieta destinatio, ut continuo, sursum atque deorsum, non secus atque venti, inordinato ac irregulari motu, Blas suo stellarum respondeant.’ See Genesis 1.14.

happens as a result of His Will. His *fiat* perfectly coincides with nature, which has been created with the ability to move itself. This theological assumption underlies Van Helmont's principle that everything in nature moves driven by its own internal inborn movement (*sijn eerste en eygen ingeboren roeren*).⁴⁷

According to the narrative in Genesis, human beings were created after the stars. For Van Helmont, this means that stars are connected to humans as paradigms of life rather than the cause of their movements. The heart follows the sun, the head the moon, and so on.⁴⁸ Similarly, every part makes its own *blas* according to the example of the stars. It is crucial for Van Helmont to emphasise that the stars are indicators of, and not the governors of the movements of human beings, nor of the movements of plants, because 'every corporeal birth has its own *blas*, coming from the beginning of its being, i.e., its will.'⁴⁹ In other words, everything on earth moves by itself, without the need to assume the existence of heavenly movers.⁵⁰ *Blas* is susceptible to being directed by the will of living creatures. In the treatise 'Blas humanum', Van Helmont distinguishes two kinds of human *blas*, one for natural (involuntary) motions, the other for animal (voluntary) ones. It is not connected to supernatural or celestial motion, for carnal generations flow out of the power of the seed, the power of the seed in turn from the will of the flesh; each generation has therefore a *blas* of its own, which flows out of the essential principles in each natural being, that is, the will of the flesh and the lust or desire of a manly will, and can be used for its own purposes.⁵¹

The complexity of Van Helmont's notion of *blas* depends largely on the fact that, as I said at the beginning of this chapter, *blas* intersects with various domains in both the natural and supernatural order. It presupposes the biblical account of creation, a dramatic reinterpretation of the fundamental principles of astrology, especially in its Paracelsian version and, finally, a new way of looking at meteorological phenomena, stripped of all their Aristotelian accretions. These were all extremely sensitive questions at the time. In Van Helmont's view, God first created life, then the stars and eventually the human being. The nature of the elements –

⁴⁷ Van Helmont, 'Elfde Pael: Dat de leere van Blas en Gas tot nut streckt', in *Dageraad*, pp. 107-8.

⁴⁸ This pattern was in accordance with contemporary astro-medical ideas. See for example, Roger French, *Medicine before Science: The Rational and Learned Doctor from the Middle Ages to the Enlightenment*, Cambridge 2003, pp. 132-4; and D. P. Walker, 'The Astral Body in Renaissance Medicine', *Journal of the Warburg and Courtauld Institutes* XXI (1958), pp. 119-33.

⁴⁹ Van Helmont, 'Elfde Pael: Dat de leere van Blas en Gas tot nut streckt', in *Dageraad*, p. 109: 'alle vleeschelijcke geboorte heeft haeren eygen blas,[...] vlietende uyt den beginne sijns wesens, 't welck is den wille'.

⁵⁰ *Ibid.*, p. 109.

⁵¹ Van Helmont, 'Blas humanum', § 8, in *Ortus medicinae*, p. 173: 'Blas tamen quod voluntate animalium ad motum localem dirigitur, id sane nullo modo connexum est lationi superae. Omnis quippe carnalis generatio fluit ex potestate seminis, et potestas seminis ex voluntate carnis; igitur carnalis generatio proprium Blas habet, inserviens usibus suorum finium, fluentium ex initiis sui esse. Quae sunt voluntas carnis, et libido voluntatis virilis.' See also Van Helmont, 'Elfde Pael: Dat de leere van Blas en Gas tot nut streckt', *Dageraad*, p. 109.

especially water and air – depended on their being created by God at the very beginning, and the story of Genesis contained valuable hints to understand their essence and functions in the natural world. Finally, when God created life, this took the form of a multiplicity of vital principles, ferments, seeds, archei, all of them united by the common characteristic of enclosing an astral source of life, i.e., *blas*. More than any other chapter, ‘Formarum ortus’ (‘The Origin of Forms’) is the place where Van Helmont expounds the ontological premises of his natural philosophy. Here he confirms his view that the power of generation existed before the stars had been created, which means that the stars are of a lower status and that the Aristotelian saying ‘man and the sun makes man’ is not true, because – Van Helmont continues citing the Bible – ‘the first man, made out of clay, was animated through the infusion of God’s breath.’⁵²

Here it is important to reiterate the point that, in Van Helmont’s opinion, the astral *blas* influences the weather and other sublunary phenomena, but does not act on plants, animals or humans in a deterministic fashion. The way *blas* moves from the stars to the earth and through the air is described in the chapter ‘Vacuum naturae’ (‘The vacuum of nature’) and it reflects Van Helmont’s ideas about air and the void.⁵³ Air is, according to Van Helmont, one of the three elements, together with water and earth. Since fire is not mentioned in the Genesis account of the creation, Van Helmont does not consider it to be an element and claims it does not have a substance.⁵⁴ Air, by contrast, can be equated to the heavens mentioned in Genesis (*coelum*); it is material and therefore one of the three elements.

Van Helmont maintains that the existence of a vacuum can be demonstrated by the following experiment: stick a burning candle to the bottom of a bowl (using a bit of its wax to fix it), and fill the bowl with water up to two or three fingers under the flame. Put a cupping-glass (*cucurbita vitrea*) over the burning flame which leaves enough space for the flame, and you will see that the water will rise into the glass and eventually will extinguish the flame.⁵⁵ Van Helmont argues that for this phenomenon to occur the total amount of matter needs to have decreased, otherwise there would be no space for the water to rise. Yet, as fire is not a substance, it cannot consume the element air. The only explanation is that it takes something out of the air which is not

⁵² Van Helmont, ‘Formarum ortus’, § 1, in *Ortus medicinae*, p. 125: ‘Quod homo hominem generet et Sol. *Protoplastus enim ex limo factus, et inspiratione divini flatus; est animatus.*’ The first is a quotation from Aristotle, *Physica*, II, 2 (194b, 14-15), often commented on and used as evidence that the stars exercise influence on human beings. The second reference is to Genesis 2.7: ‘formavit igitur Dominus Deus hominem de limo terrae et inspiravit in faciem eius spiraculum vitae, et factus est homo in animam viventem’. See also James J. Bono, *The Word of God and the Languages of Man*, p. 102.

⁵³ Van Helmont, ‘Vacuum naturae’, in *Ortus medicinae*, pp. 79-84.

⁵⁴ Van Helmont, ‘Negende Pael: Van de Elementen’, in *Dageraed*, pp. 63-4.

⁵⁵ Van Helmont, ‘Vacuum naturae’, § 7, in *Ortus medicinae*, p. 80. See Debus, *The Chemical Philosophy*, II, pp. 329-34 on this experiment described by both Van Helmont and his contemporary Robert Fludd.

corporeal, i.e., the empty space in the air.⁵⁶ And because fire does not need to be nourished, it cannot absorb the element air, i.e., matter, but it could take something which does not have a physical presence, namely, the empty spaces interspersed in the air.⁵⁷

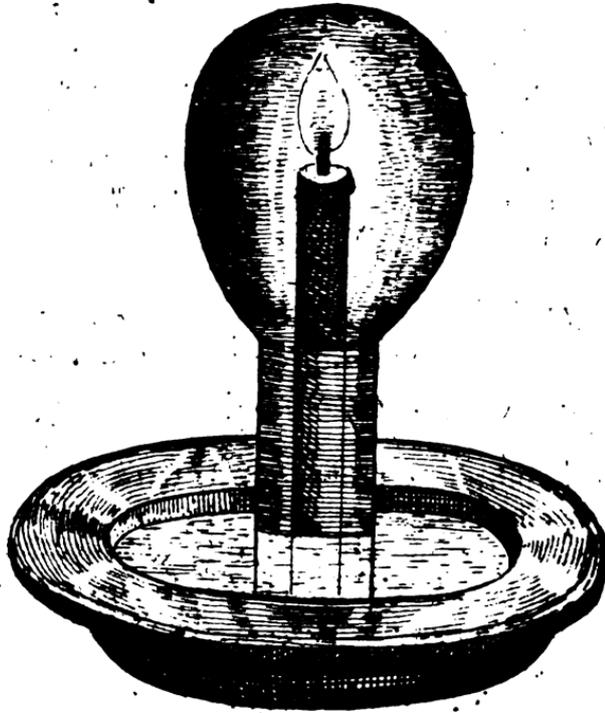


Figure 2: The picture shows the same experiment to prove the existence of a vacuum, as repeated by Robert Fludd. In Robert Fludd, *Integrum morborum mysterium*, Frankfurt 1631, p. 457.

The notion that air has empty spaces within itself is essential for understanding how *blas* moves through air. However, these porosities in the air are not in fact completely empty, but contain ‘a created being (*ens creatum*), which is real, not a figment, nor merely an empty place but something that is intermediary between matter and incorporeal spirit.’⁵⁸ According to Van Helmont:

A *magnale* is that which refuses to manifest itself through something similar to itself because there is nothing similar to it among the created things. The *magnale* is not light, but like an assisting form for the air, a companion as it were, which is joined to the air

⁵⁶ On Van Helmont and atomism, corpuscular and matter theories, see William R. Newman, ‘The Corpuscular Theory of J. B. Van Helmont and its Medieval Sources’, *Vivarium* XXXI (1993), pp. 161-91; id., *Gebennical Fire*, pp. 110-4.

⁵⁷ Van Helmont, ‘Vacuum naturae’, § 11, in *Ortus medicinae*, p. 81: ‘In aere videlicet aliquid esse, minus quam corpus, quod aeris vacuitates implet.’ The *Dageraed* records the same experiment, in ‘Vyf-entwintigste pael: De winden der menschen’, pp. 207-8.

⁵⁸ Van Helmont, ‘Vacuum naturae’, § 20, in *Ortus medicinae*, p. 83: ‘in se ens creatum, id est, aliquid reale, non figmentum, nec solum locum nudum, sed quod est inter materiam, et spiritum incorporeum plane medium.’

through a sort of marriage. I say that it is an assisting form, and not one that is united to its essence. As such, it assists within the pores [of air]. Through this form, the astral *blas* extends in all direction, immediately and without hindrance and with instantaneous movement, not over thousands generations of thousand kinds, but completed as it were in one single moment, as often as the light, or the celestial influences hit the lower natures.⁵⁹

This is how *blas* descends to us, and through the mediation of the atmospheric phenomena, food and respiration, it becomes a constitutive element of our physiological life.⁶⁰ As mentioned above, there are two kinds of *blas* within us. One regulates the involuntary processes of our body (i.e., the ‘natural’ operations, such as the heartbeat), the other is responsible for all conscious and voluntary actions.⁶¹ The astral *blas* is not only indicative of the changes of season, time and weather, but also provides a universal pattern that allows us to understand the function of the *blas* in the different parts of our body; this means, that, ‘just as one follows in the footsteps of a postilion or a guide of one’s own free will, so the heart follows the Sun, the head the Moon, etc.’⁶² Apart from this generative power, *blas* is essential for the pulse and the heartbeat. And although the pulse is not regulated by the direct will of men, it is led by the will of God, and therefore does not depend on the astral *blas* but on the local human *blas*.⁶³ Respiration, on the other hand, is ‘pulled by the bridles of the will’.⁶⁴

Before William Harvey published his findings about the circulation of the blood in 1628 in his *Exercitatio anatomica de motu cordis et sanguinis in animalibus*, it was generally accepted that pulse and respiration had a twofold end, i.e., to lower the temperature of the heart and to expel the soot (*fuligines*) generated by the combustive processes that were supposed to take place within the left ventricle of the heart. The ancient authorities added a further use, namely, the feeding of the

⁵⁹ Ibid., §§ 21-22, p. 83: ‘Magnale est, quod cum in creatis sui simile non habeat, ideo per sibi simile manifestari recusat. Magnale quidem non est lux, sed forma quaedam assistens aeri, ejusque velut socia, ipsique certo connubio velut conjugalis. Assistens, inquam, non conjuncta essentiae ejus; ideoque in poris assistens. Per hanc videlicet, Blas astrorum, immediate ac sine impedimento quaquaversus et instantaneo motu extenditur: non autem per millenas millium specierum generationes, unico velut momento peractas, quoties lux, vel influentiae coelestes, inferiora feriunt.’ In the *Dageraed* the ‘magnale’ is introduced twice, in the Ch. 14 (‘Veertiende Pael: Naerder bediet des middel-levens’), p. 138; and in Ch. 25 (‘Vyf-entwintighste Pael: De winden der menschen’), p. 209.

⁶⁰ Van Helmont, ‘Vacuum naturae’, § 22, in *Ortus medicinae*, p. 83: ‘qua via Blas ad nos descendat.’

⁶¹ Van Helmont, ‘Blas humanum’, § 9, in *Ortus medicinae*, p. 173.

⁶² Van Helmont, ‘Elfde Pael: Dat de leere van Blas en Gas tot nut streckt’, in *Dageraed*, p. 109: ‘gelijckmen volgt der Postilloens, oft leytsmannen voetstappen uyt vryen wille, soo oock volght het herte de Son, ’t hooft de Maen, etc.’ See also ‘Blas humanum’, § 5, in *Ortus medicinae*, p. 173: ‘Unumquodque nempe viscus, ad typum sui Astri, intus proprium sibi Blas format, quod et hinc astrale dicitur, eo quod imitetur coeli vestigia, tam prioritare dierum, praecursoris astri, quam legibus destinationum, in natura.’

⁶³ Van Helmont, ‘Blas humanum’, § 10, in *Ortus medicinae*, p. 173.

⁶⁴ Ibid., § 32, p. 177: ‘fateor quidem anhelitum, per voluntatis frenos trahi, sive per voluntarii motus organa, pulsum vero non item.’

vital spirit through air.⁶⁵ Although it seems very unlikely that Van Helmont did not know about Harvey's discovery of blood circulation, he does not mention Harvey, nor does he anywhere show himself to be acquainted with the circulatory model. He does present his own explanation of the function and use of the heartbeat, which is closely related to the vital spirit and *blas*, for he says, that 'the blas of the heart is the fuel of the vital spirit.'⁶⁶ This is further evidence that Van Helmont's notion of vital spirit has many points in common with the traditional medical theory, according to which the vital spirit is the 'first, direct instrument of the soul', and is produced in the left ventricle of the heart from the arterial blood:⁶⁷

Food and drink ascend gradually to the chyle of the stomach, then to the chyme of the mesentery, the venous blood and finally, through the arterial blood, to subtlest ether, i.e., the vital substratum of the spirit and the soul. And this series of transformations presupposes the motion of the heart.⁶⁸

The motion of the heart produces the fuel that allows the vital spirit to move throughout the body and, contrary to ancient belief that the pulse performed a cooling function, that motion is the source of the natural heat of the body. The production of vital spirit, with its starting-point in the heart and its final perfection in the arteries, does not release any 'soot' and there is therefore no need for a channel to expel the smoke from the body.⁶⁹ Yet, when the venous blood becomes overheated, a gas is produced, which has to be secreted from the body through exhalation.⁷⁰ All this means that the uses of the pulse are manifold, the most important ones being those of producing the vital spirit and spreading it through the body. Within this system, the *blas* has the crucial role of generating heat. Once again the *blas* is the 'key-holder'.⁷¹

When one compares the accounts of *blas* given by Van Helmont in the *Dageraed* and the *Ortus medicinae*, the explanation in the *Dageraed* seems more concise:

The stars have two kinds of motions, the first is the local movement, and the second that of change or alteration, producing an effect so that the local motion, which we perceive through the stars, is a propelling force, which we call *blas*, and which mainly

⁶⁵ Ibid., §§ 11-14, in *Ortus medicinae*, pp. 173-4; id., Ch. 11 ('Elfde Pael: Dat de leere van Blas en Gas tot nut streckt'), in *Dageraed*, pp. 110-1.

⁶⁶ Van Helmont, 'Blas humanum', § 24, in *Ortus medicinae*, p. 176: 'Est itaque Blas cordis, vitalis spiritus.'

⁶⁷ D. P. Walker, 'Medical *Spirits* and God and the Soul', in *Spiritus: Lessico Intellettuale Europeo*, ed. by Marta Fattori and Massimo Bianchi, Rome 1984, p. 223.

⁶⁸ Van Helmont, 'Blas humanum', § 23, in *Ortus medicinae*, p. 175: 'Sic nempe paulatim, cibus et potus in chylum stomachi, chymum mesenterii, cruorem venalem, ac tandem per sanguinem arterialem, ad tenuissimum aethera, vitale spiritus et animae substerniculum ascendit. Quae commutatio motum cordis praesupponit.'

⁶⁹ Ibid., § 24, p. 176; § 28, p. 177.

⁷⁰ Ibid., § 33, p. 178.

⁷¹ Ibid., § 57, p. 183: 'Blas pulsuum est ad fabricam caloris, non autem frigoris.'

causes winds, and movement of the air, by stirring the air and waters with a variety of bad weather.⁷²

After the introduction of the new terms, in the *Dageraed* Van Helmont devotes an entire chapter to the explanation of the usefulness and meaning of the two terms (including *gas*). Compared to this, the Latin account appears to be more extended and dispersed over a number of sections. In a way, the *Ortus medicinae* looks more like an open-ended enterprise, compared with the *Dageraed*, which was clearly planned as a self-contained book from the very beginning. Both the *Ortus medicinae* and the *Dageraed* were published posthumously, but the *Ortus*, as a collection of treatises of various kinds put together by Francis Mercury Van Helmont, shows the author at work while experimenting with his ideas, and not only with chemical substances and medical remedies. In that, the *Ortus medicinae* has a distinctive aspect of incompleteness and openness that reminds one of a very active laboratory.

Gas

Van Helmont claims that Paracelsus was ignorant of the notion of *gas*, ‘it is a discovery of mine’, he says with a clear sense of pride.⁷³ The discovery and naming of *gas* is announced at the end of the tract *Progymnasma meteori* (‘Exercise in Meteorology’), as a result of the inability of scholastic natural philosophers to explain the true nature of the elements:

The Schools did not know that all properties – not only the ones they call ‘hidden’ (*occultae*), but all others – derive from the womb of the seeds, and that all properties are formal (as even the Schools call them). Surely, I find (*experior*) the four elemental qualities, as if on the external surface of things, as secondary and destructive. But the inner ones reveal the *archeus*. Nevertheless, all properties come from the bosom of seeds and forms. None of them derives from prime matter or from the marriage of the elements, as both are fictitious mothers. By contrast, since water transformed into vapour by cold is of a different kind than the vapour caused by heat, I take advantage of the licence offered by paradoxes and, lacking a word (*in nominis egestate*), I have thus called that exhalation (*halitus*) ‘gas’, not very different from the ‘chaos’ of the ancients. For the time being, it is sufficient for me to know that gas is far subtler than vapour,

⁷² Van Helmont, ‘Tiende Pael: Der Elementen en Meteoren rechte kennisse’, in *Dageraed*, p. 103: ‘De sterren dan hebben hier toe tweederhande beroerten, d’ene is de stedelijcke beroerte, en de tweede is de veranderinge oft anderheyt, maecdende de stedelijcke roeringe, die ons door ’t gesternte voortkomt, is een drijvende macht, die wy Blas heeten, en streckt grootelijcks tot winden, en drijvende locht, beroerende dan locht en wateren met versheyde onwerders.’

⁷³ Van Helmont, ‘Progymnasma meteori’, § 27, in *Ortus medicinae*, p. 69: ‘Ignoravit nempe vir ille quidditatem Gas (meum scilicet inventum)’.

soot and dripping oily matters, although it is much thicker than air. From a material point of view gas is water masked with the ferment of the concrete things.⁷⁴

This quotation brings together all the important aspects of Van Helmont's concept of *gas*. First of all, his belief that the four 'elemental qualities' (water, air, earth and fire) are empty and incorporeal, but that their essence and substance is formed by the three principles of mercury, sulphur and salt. These three principles, being the smallest parts of water, are inseparably connected to each other, and since water is the principle element of which everything else is formed, the three principles are contained in everything.⁷⁵ *Gas*, therefore, 'varies not as a substance or essence, but only in terms of disposition', when for example compared to water, vapour or air.⁷⁶ How the three principles change their disposition in the process of becoming *gas* is clearly summarised by William Newman:

When water is heated, the salt, which cannot tolerate heat, is forced upward, and since the mercury and sulfur cannot be divided from it, they follow the salt. If the vapor then passes into yet higher regions, the mercury can 'no longer keep its salt in solution', so it becomes a 'gas'. In order to protect the mercury and salt, the warmer sulfur forms a skin over them, but in doing so it becomes attenuated. In the process, the mercury and salt also become attenuated, since they are attached to the sulfur. This attenuation occurs by a division of the water into 'the smallest possible particles', that is, 'gas'.⁷⁷

By describing the change of disposition of the three principles during the change from water into *gas*, Van Helmont lays the foundation for the modern concept of *gas* and its free-moving particles.⁷⁸

In the *Dageraed* *gas* is mentioned for the first time in the 'Tiende Pael: Der Elementen en Meteoren rechte kennisse' ('Tenth Post: The True Knowledge of the Elements and Meteorological Phenomena'), a few pages before the introduction of *blas* in the same chapter.

⁷⁴ Van Helmont, 'Progymnasma meteori', §§ 28-29, in *Ortus medicinae*, p. 69: 'Nescitum est namque in Scholis proprietates omnes nedum occultas, quas vocant, sed et quaslibet alias, fluere e gremio seminum, quasque formales omnes, et ipsae licet Scholae vocent. Ego sane quatuor qualitates elementales, velut externo in rerum cortice experior, perniciores secundas, intimas vero, in Archeo immediate premi. Omnes tamen esse de sinu seminis et formarum. Nullam autem de materia prima, ut neque de elementorum connubio egredi, utpote ficticiis matribus ambabus. Verum quia aqua in vaporem, per frigus delata, alterius sortis quam vapor per calorem suscitatus, ideo paradoxi licentia, in nominis egestate, halitum illum Gas vocavi, non longe a Chao veterum secretum. Sat mihi interim sciri quod Gas vapore, fuligine et stillatis oleositatibus longe sit subtilius, quamquam multoties aere adhuc densius. Materialiter vero ipsum Gas, aquam esse, fermento concretorum larvatam adhuc.'

⁷⁵ Van Helmont, 'Negende Pael: Van de Elementen', in *Dageraed*, pp. 64-5.

⁷⁶ Van Helmont, 'Gas aquae', § 13, in *Ortus medicinae*, p. 72: 'Gas ergo non substantia, aut essentia, sed alteratione tenus, duntaxat variat.'

⁷⁷ Newman, *Gehennical Fire*, p. 112. The production of *gas* is described in Van Helmont, 'Tiende Pael: Der Elementen en Meteoren rechte kennisse', in *Dageraed*, pp. 95-6, and id., 'Gas aquae', §§ 12-3, in *Ortus medicinae*, pp. 71-2.

⁷⁸ Kurd Lasswitz, *Geschichte der Atomistik vom Mittelalter bis Newton*, 2 vols, Hamburg and Leipzig 1890, I, p. 350.

While describing how the different levels of consistency of water, earth and air depend on the three principles, Van Helmont dwells on the difference between vapour and *gas*:

Then there is water separated by fire, and by the flame the greasy smoke turns into a body, similar to air. It is not the water, which had become a burnt residue (*herst*), that turns into air, but a vapour appears from the residue by the flame, which is denser than air (therefore a pot with a coal fire, put in the sun, gives a shadow, and because it is denser than air, it cannot be air) and is similar to the vapour, which appears from water through the cool air. This vapour, to distinguish the vapour caused by heat and from water, we call here *gas*, which is also a wet vapour and water, like the true vapour of warm waters, only distinguished by the fact that *gas* is much more subtle than any vapour, and above all is surrounded and captured by the dryness of the air.⁷⁹

As in the case of *blas*, Van Helmont devoted two chapters to his discussion of *gas* in the *Dageraad*, while his account in the *Ortus medicinae* extended to several more treatises besides the specific tract on ‘Gas aquae’.

Archeus

For both Paracelsus and Van Helmont, the body and its organs are ruled by the *archeus*, the vital spirit or ‘work-master’. The *archeus* is the actual force of life and gives directions to everything that happens in the body. The main *archeus* is located in the stomach, which is seen as the centre of all living processes (the main ‘kitchen’ of the body, as it were) and the seat of the sensitive soul.⁸⁰ A direct consequence of this physiological arrangement is that all sorts of pathological processes, too, originate in the stomach and its surroundings, the area known as the hypochondria, for it is the disturbed sensitive soul which produces images that affect the *archeus*. In the treatise *Ortus imaginis morbosae* (‘The Origin of a Morbid Image’), Van Helmont describes in graphic detail the horrific process through which the imagination of the principle of life – the *archeus* – is unsettled and deranged by images and passions:

⁷⁹ Van Helmont, ‘Tiende Pael: Der Elementen en Meteorēn rechte kennisse’, in *Dageraad*, p. 90: [D]an wort ‘er door het vuer een water gescheyden, en door de vlam wort den vetten roock tot eenen lijve, de locht gelijk; niet dat het water, ’t welck herst was geworden, tot een locht moge worden, maer wel dat daer een damp wort uyt den herst door de vlamme; de dichter is dan de locht (oversulcks eenen pot met koolen vuer, gestelt in de sonne-schijn, geeft schaduwe, die immers dichter wesende dan de locht, geen locht en kan wesen) en is den damp gelijk, die door de koelte des lochts wort uyt de wateren, welken damp wy hier, tot onderscheyt des dampes die veroorsaecht wort by de warmte, en uyt het water, Gas noemen, die is oock eenen natten damp, en water, als den oprechten damp der warme wateren, alleenelijck daer mede gescheyden, dat den Gas veel subtijlder is, dan eenigen damp, en daer-en-boven is omgeven en bevangen met de drooghte des lochts.

⁸⁰ Van Helmont, ‘Confirmatur morborum sedes in anima sensitiva’, § 10, in *Ortus medicinae*, p. 534.

A disease is therefore an engendered being (*ens natum*), after an unfamiliar and harmful power has violated the vital principle, penetrated its power and, by penetrating in it, has aroused the Archeus to indignation, fury and fear. Certainly, the anguish and troubles of these perturbations, through the work of the imagination, cause an idea and image similar to them. Indeed that image is readily stamped, expressed and sealed in the *archeus*, and being clothed with it, a disease soon enters the scene (*in scenam intrat*), being indeed composed of an archeal body, and an efficient idea. Evidently, the Archeus injures itself, as soon as it has received [the disease] for the first time, and immediately afterwards he yields, flees or is alienated, or knocked down, or stained, and is forced to submit to a foreign government and to sustain a civil war within itself raised upon itself. Indeed such a foreign image (*icon*) is materially imprinted on and arising from the *archeus*: a true unwholesome being, I say, which is called a disease.⁸¹

Walter Pagel wrote that the common pathology of Van Helmont's time 'largely followed the ancient theory which regarded man himself, i.e., the mixture of his humours or his temperament, as the chief cause of disease. This varies with the faulty humour, the humoral mixture or the 'quality' which, already in normal life, is predominant in every individual. For Van Helmont, however, the 'morbid being' is something foreign to man, an 'alien ferment' which impresses its own life schedule on the archeus of the patient'.⁸²

Medieval and early modern medicine was based on the idea taken from canonical Hippocratic and Galenic texts that every human was the result of a combination of the four humours (blood, black bile, yellow bile and phlegm).⁸³ While a healthy individual was characterized by a balanced relationship among such humours, in an ill person the balance needs to be restored and brought back to its constitutive form. Bloodletting and purging were the most common therapies. As stated by Pagel, 'therapy of the Ancients was directed against the wrong humours and qualities, i.e., against man and his faulty constitution. It aimed at restoring the material balance of the body and thereby to cure diseases. In van Helmont's view therapy is directed against the cause. After its removal the balance of the material constituents will recur

⁸¹ Van Helmont, 'Ortus imaginis morbosae', § 2, in *Ortus medicinae*, pp. 523-4: 'Est itaque morbus, ens quoddam natum, postquam nocua quaedam potestas peregrina violaverit vitale initium, hujusque vim penetraverit, ac penetrando excitaverit Archeum ad indignationem, furorem, metum &c., quarum scilicet perturbationum anxietates, ac molestiae, ideam sibi consimilem, imagenemque imaginando debitam, excitant. Promte scilicet ista imago cuditur, exprimitur, sigillaturque in Archeo; eoque vestita, mox morbus in scenam intrat, corpore scilicet archeali, & efficiente idea, constructus. Archeus nimirum sibi noxam parit, quam ubi semel admisit, mox dein quoque importunitate illius cedit, fugit, alienaturve, aut deturbatur, vel inquinatur, cogiturque subire alienum imperium domesticeque sibi excitatum bellum civile, sustinere. Est nimirum Icon aliena ejusmodi, materialiter impressa, surgensque ex Archeo. Verum inquam ens morbificum, quod morbus appellatur.'

⁸² Pagel, *The Religious and Philosophical Aspects of van Helmont's Science and Medicine*, Baltimore 1944, p. 39.

⁸³ Nancy G. Siraisi, *Medieval and Early Renaissance Medicine*, Chicago 1990, pp. 104-6.

automatically.⁸⁴ This radically new idea of curing the cause of a disease was taken from Paracelsus. But whereas in Paracelsus's pathology the influence of the stars and the connection between macro- and microcosm was essential, Van Helmont rejected astral influences and cosmic correspondences.⁸⁵

According to Van Helmont, a disease was an actual *ens*, a being, a *morbosum ens*, which was deemed to reside in a body, composed of matter and an internal seed that developed as an efficient principle. As he wrote in the tract 'In puncto vitae subjectum inhaesionis morborum' ('The Matter of Diseases Inheres in the Very Core of Life'):

Since a disease is a being that exists in actuality within the body, and it is made up of matter and an internal principle, which is both efficient and seminal, a disease of this kind does therefore not belong to the category of occasional causes, especially because the internal principles of things constitute the being itself and are undistinguishable from its essential nature. Just as, if we speak of the body or the soul of a human being, the human being is said to be both the body and the soul (although not as one single thing), in the same way, the matter of the disease as well as its seminal efficient principle are both the actual disease, although not considered as one single entity.⁸⁶

Because of its centrality in the vital economy of the human body, the *archeus* is a recurring topic throughout Van Helmont's medical treatises. Although Van Helmont is dealing with a Paracelsian term and in this case cannot pride himself on another invention, it is interesting to note that he does not mention Paracelsus in the two chapters on *archeus*, especially since he comments on his predecessor on many other occasions, and indeed in both positive and negative terms. In the *Dageraed* as well as in the *Ortus medicinae*, we find one of the first chapters dedicated to the archeus, 'Van den inwendigen werck-meester der saden' ('On the Internal Work-Master of Seeds') and 'Archeus faber' ('The Archeus as the Work-Master').⁸⁷ It is interesting to note that, when we compare the two chapters relating to the *archeus* in the *Dageraed* and the *Ortus medicinae*, the former is longer than the latter. This is in marked contrast to the chapters on *gas* and *blas* in the two books, where, as we have just seen, the *Ortus* contains a

⁸⁴ *Ibid.*, pp. 39-40.

⁸⁵ On the influence of the stars, see Van Helmont, 'Astra necessitant, non inclinant; nec significant de vita, corpore vel fortunis nati', §§ 13-14, in *Ortus medicinae*, p. 116; on the micro-macrocosm: id., 'De flatibus', § 8, in *Ortus medicinae*, p. 400.

⁸⁶ Van Helmont, 'In puncto vitae subjectum inhaesionis morborum', in *Ortus medicinae*, p. 505: 'Siquidem morbus est ens vere subsistens in corpore, constructumque ex materia & efficiente interno seminali, adeoque etiam hactenus sese sequestrat longe a causis occasionalibus. Praesertim quod interna rerum initia constituent ipsum ens, sintque inseparabiliter de ejus essentiali quidditate. Sic nimirum ut si loquamur de corpore, vel anima hominis: recte utrumque dicitur homo licet non integer. Sic nempe materia morbi, vere est morbus: prout & efficiens ejus seminale est vere morbus: licet non proprie integer sit morbus.'

⁸⁷ Van Helmont, Ch. 5 ('Vijfde Pael: Van den inwendigen werck-meester der saden'), in *Dageraed*, pp. 43-8; 'Archeus faber', in *Ortus medicinae*, pp. 38-9.

number of additions and re-elaborations compared to the *Dageraed*. This may be taken as a clear indication that, in Van Helmont's mind, *gas* and *blas* were more vital and productive – both linguistically and conceptually – than *archeus*, a notion that for him was more settled and accepted, at least in the milieu of Paracelsian science. The fact remains, however, that the explanations and descriptions in the *Dageraed* are more concise and comprehensible than the one contained in the *Ortus medicinae*. The definition of *archeus*, for instance, reads as follows:

We call this vital air, seat of all abilities, the *archeus*, the effective cause, the blacksmith, and being the nearest body to the seed, he contains the image of his forefathers, by whose directions he is guided, and he fulfils the histories of predestination, or the image of his birth.⁸⁸

The Latin definition is spread over three paragraphs, but the essence is very close to the Dutch:

Which air... is called *archeus*, containing the fruitfulness of generations and seeds, like an internal efficient cause. I say, that this workman has the likeness of his forefather, after whose principles he arranges the destination of the things to be done.⁸⁹

The main difference between the ways in which the concept of *archeus* is handled in the two chapters lies in the number of examples with which Van Helmont clarifies and structures the meaning of *archeus* in the *Dageraed*. The conciseness of the Dutch chapter was certainly an incentive to Christian Knorr von Rosenroth to translate almost the entire Dutch chapter into German along the translation of the Latin chapter.⁹⁰ Pagel argued that 'the more detailed account in the *Dageraad* may have been thought suitable for a more popular version in the vernacular'.⁹¹ However, in my opinion, the more detailed description in the *Dageraed* is not so much a sign of popularizing tendencies on Van Helmont's part, but of a chapter designed for a different book, meant to be complete and self-contained. Therefore 'Archeus faber' may have been a study on the *archeus* that eventually was put together in the 'Vijfde Pael' as a more detailed account of his findings.

⁸⁸ Van Helmont, 'Vijfde Pael: Van den inwendigen werck-meester der saden', in *Dageraed*, p. 43: 'Dese levende lucht, setel van alle vermogen, noemen wy *archeum*, d'uytwerckende oorsaecke, den smit, en het naeste lijf des saets, hy draegt in hem het beelt sijns voorsaets, nae wiens stieringe sich selven voegende, hy volbrengt de geschiedenissen der predestinatie, oft beeltenisse sijnder geboorten.'

⁸⁹ Van Helmont, 'Archeus faber', § 3, in *Ortus medicinae*, p. 38: Quae aura... quod Archeus vocatur, generationum et seminum foecunditatem continens, tanquam causa efficiens interna. Ille inquam faber, generati imaginem habet, ad cujus initium, destinationes rerum agendarum componit.

⁹⁰ Knorr von Rosenroth, 'Von dem Archeus oder dem inwendigen Werck-Meister der Samen', in *Aufgang*, pp. 40-2.

⁹¹ Pagel, *Van Helmont*, p. 99, fn. 9.

Alchemy

The two themes I am going to discuss in the following section, that is, alchemy and the plague, pervade Van Helmont's writings. There are several reasons why I decided to include these topics at the end of this chapter. First of all, while Van Helmont elaborated on *gas* and *blas* in a very idiosyncratic way and borrowed *archeus* from Paracelsus, alchemy and the plague were subjects of widespread debate among seventeenth-century natural philosophers and savants. Plague continued to be a major threat for public health in seventeenth-century Europe, with a number of severe outbreaks recorded in major cities in the Habsburg Netherlands, the plague during the years 1634 and 1637 in Amsterdam and Brussels being just two examples. The loss of Van Helmont's two sons to the plague in Brussels, as mentioned in the Introduction to this thesis, suggests that this tract may have had personal connotations for Van Helmont. The fact that the second part of the *Dageraed* is entirely dedicated to the plague indicates the value he attributed to this topic. Clearly, this also provides us with sufficient material to make comparisons with the *Ortus medicinae*, as will be discussed in the next section. And as was to be expected from a topic that generated a wide-spread interest, Van Helmont's plague treatise was one of his most translated works.

As for alchemy, I decided to include a short discussion of this subject in this chapter because of its importance to Van Helmont and because of the attention that alchemical language has recently received among historians of early modern chemistry. Like historians of Paracelsianism and Hermeticism, they have studied the obscure and abstruse language of chemical practitioners.⁹² Without going into great detail about the history of Hermetic knowledge, it will not come as a surprise to say that alchemy revelled in an atmosphere of secrecy.⁹³ This secrecy surrounding alchemy was partly generated by the way alchemists used language, and has intrigued many readers and historians. The complicated and obscure terminology and the metaphorical language in which they described chemical processes are difficult to understand at

⁹² Two studies in the history of chemistry with special attention to language in alchemy are: Maurice P. Crosland, *Historical Studies in the Language of Chemistry*, London 1962; Owen Hannaway, *The Chemists and the Word: The Didactic Origins of Chemistry*, Baltimore 1975; Owsei Temkin, 'The Elusiveness of Paracelsus', *Bulletin of the History of Medicine* XXVI (1952), pp. 201–17; more on language, alchemy and Paracelsianism in the following footnotes.

⁹³ For a splendid introduction to the history of alchemy, see Lawrence M. Principe, *The Secrets of Alchemy*, Chicago 2012; for the connection between alchemy and secrecy, see Pamela O. Long, *Openness, Secrecy, Authorship: Technical Arts and the Culture of Knowledge from Antiquity to the Renaissance*, Baltimore 2001; for the use of the current terminology of chemistry, alchemy and the sometimes preferred 'chymistry', see: William R. Newman and Lawrence M. Principe, 'Alchemy vs. Chemistry: The Etymological Origins of a Historiographic Mistake', *Early Science and Medicine* III (1998), pp. 32–65. For an introduction to esoteric knowledge and alchemy, see Frances A. Yates, *Giordano Bruno and the Hermetic Tradition*, London 1964; a brief overview of the reception of her work in the forty years after the publication of the book on Giordano Bruno, see Stanton J. Linden, 'Introduction: Recent Scholarship in Alchemy and Hermeticism', in *Mystical Metal of Gold: Essays on Alchemy and Renaissance Culture*, ed. by S. J. Linden, New York 2007, pp. vii–xii; see also D. P. Walker, *Spiritual and Demonic Magic from Ficino to Campanella*, London, 1958; for a more recent perspective, see Kocku von Stuckrad, *Locations of Knowledge in Medieval and Early Modern Europe: Esoteric Discourse and Western Identities*, Leiden 2010.

first glance and therefore enhance the aura of secrecy.⁹⁴ From its very introduction in Europe in the twelfth century, authors of alchemy used language to both describe and conceal their science, a process carefully described by William Newman.⁹⁵ The guiding ideal was a fine balance, created by giving the reader glimpses into alchemical knowledge while at the same time not presenting the full picture. One reason for this lay in the financial rewards which could be reaped by those who were lucky enough to find employment. The alchemists guarded what could be called a trade secret and ensured the protection of privileged knowledge.⁹⁶ Recent scholarship in the history of alchemy and especially the attention given to the connection between the theory and practice of early modern alchemists have shown that metaphorical language and riddles could be deciphered into actual laboratory practices.⁹⁷ The alchemists who were able to follow instructions encoded in metaphors needed to be versed in the field, but then they were also able to use these instructions and refer to these texts when experimenting in their laboratories.⁹⁸ This is interesting in regards to language. On numerous occasions alchemists were accused of obscuring their writings, as we have seen above. One figure who was very aware of the power of language as a means of communication and who was not afraid of constantly inventing neologisms in his alchemy and medicine was Paracelsus. His writing style generated a great amount of criticism, with the main objection being directed against a terminology widely regarded as incomprehensible.⁹⁹ Nevertheless, it would not just be his theories but also his terminology which would survive for many decades in alchemical and medical texts. Interestingly, most of Paracelsus greatest followers did not adopt his practice of writing in their respective vernaculars, even though his ideology prescribed instruction and education in the vernacular.¹⁰⁰ Van Helmont, despite his rejection of numerous Paracelsian ideas, is also regarded as a follower of Paracelsus – and one who did not write in his mother tongue. In spite of Van Helmont’s mainly Latin output, the *Dageraed* reveals another side of his authorship, in which he embraces the Paracelsian ideology to write in the vernacular in order to instruct one’s neighbours (*ten behoeve mijns naestens*), as it becomes clear from his introduction to

⁹⁴ Alchemical images will not be discussed in this thesis, but a good introduction is: Barbara Obrist, *Les Débuts de L’imagerie alchimique: XIV^e-XV^e Siècles*, Paris 1982.

⁹⁵ William R. Newman, “‘Decknamen or Pseudochemical Language’?: Eirenaeus Philalethes and Carl Jung”, *Revue d’histoire des sciences* II (1996), p. 162.

⁹⁶ *Ibid.*, p. 165; see also Lawrence M. Principe, *The Scientific Revolution*, p. 81.

⁹⁷ Newman, “‘Decknamen or Pseudochemical Language’?”, pp. 166-88; Principe, *The Secrets of Alchemy*, pp. 134-71; on the shift in the history of alchemy towards the practice of the early modern alchemists, see Tara E. Nummedal, ‘Words and Works in the History of Alchemy’, *Isis* CII, (2011), pp. 330–7.

⁹⁸ Whether these experiments would ever give the outcome they promised is hard to say, as there are not many records thereof. However, a group of historians of alchemy, led by Lawrence M. Principe and Jennifer Rampling, are currently recreating early modern alchemical experiments and try to match the processes with the descriptions as we know them from the sources.

⁹⁹ Joachim Telle, ‘Die Schreibart des Paracelsus im Urteil deutscher Fachschriftsteller des 16. und 17. Jahrhunderts’, *Medizinhistorisches Journal* XVI (1981), pp. 78-81.

¹⁰⁰ *Ibid.*, p. 93; see also Dietlinde Goltz, ‘Die Paracelsisten und die Sprache’, *Sudhoffs Archiv* LVI (1972), pp. 337-52.

the *Dageraed*.¹⁰¹ But a significant question remains: Did Van Helmont follow the alchemists' tacit rule to obscure one's language?

In the treatise on the stone ('De lithiasi) published in the *Opuscula medica inaudita* (1644), after commenting on a passage from Pseudo-Llull's *Testamentum*, Van Helmont concluded that 'only alchemy (*spagyria*)' was 'the mirror of the true intellect' and that only through alchemy one could 'touch and see the truths of things, in a clear light.'¹⁰² The passage from Pseudo-Llull – quoted by Van Helmont as Ramon Llull, as he assumed the latter was the real author of the text – describes how books cannot bring wisdom (*sapientia*) and that only experience (*experientia*) will impart to man the highest form of understanding.¹⁰³ With his comment Van Helmont does explain two things about his views on true science and knowledge. First of all, knowledge does not derive from reading books, which is in line with earlier statements made by Van Helmont, and secondly, only experience and experiment can reveal true knowledge. This true knowledge, derived from experience in the laboratory, can only be perceived through the senses, and would form images in the imagination. However, as seen in Chapter 1, for Van Helmont it is the intellect that reflects the image of God, and therefore the *speculum veri intellectus* – as he calls alchemy – creates a possibility to recognize knowledge from the 'bottom' – the deepest level – of the intellective soul.¹⁰⁴ Once again, we are confronted with the problem of translating experience or knowledge into words. Van Helmont, the *philosophus per ignem*, describes a variety of experiments in his works, some of which have been repeated in modern laboratories by Newman, Principe and Ducheyne.¹⁰⁵ The vocabulary Van Helmont uses is not as obscure as one might expect, since he often gives clear definitions. The first edition of the *Opuscula medica inaudita* contained, just before a 'Letter to the medicine-loving reader' a list of words in need of explanation. This list starts with the definition for 'Alkahest', according to the historian Paulo Porto, one of Van Helmont's 'most important secrets', as Van Helmont did not give the recipe for this liquor anywhere in his written works, but used it regularly as a basis for chemically

¹⁰¹ Van Helmont, 'Den onuytspreeckelijcken naeme', in *Dageraed*, sig. [*4]r.

¹⁰² Van Helmont, 'De lithiasi, Ch. 3 ('Contentum urinae'), in *Opuscula medica inaudita*, p. 43: 'Spagyria enim sola, est speculum veri Intellectus: monstatque tangere, et videre veritates earum, in claro lumine.'

¹⁰³ Ibid., p. 42: 'Utcunque Logicus, habeat profundum ingenium, argumentabile, aut naturale, de rebus extrinsecis: tamen nunquam, per aliquam rationem quae venit ad sensum, poterit directe cognoscere, nec iudicare, cum quali natura, aut virtute, per fortitudinem intrinsecus, habeat multiplicatio grani, crescere super terram, nisi pro similituniario ab observatione desumpto... Quia per nostram mechanicam scientiam, intellectus est rectificatus, vi experientiae, respectu oculi, et verae notitiae mentalis. Imo experientiae nostrae, stant supra probationes phantasticas conclusionum, ideoque nec eas tolerant: Sed omnes alias scientias, ostendunt vivaciter intrare in intellectum.' The reference given in the *Opuscula* is 'Testamenti c. 26', but in fact Van Helmont's quotation is a paraphrase of Chapter 25. See Ramon Llull, *Il Testamentum alchemico attribuito a Raimondo Lullo: Edizione del testo latino e catalano dal manoscritto Oxford, Corpus Christi College, 244*, ed. by Michela Pereira and Barbara Spaggiari, Florence 1999, pp. 74-8.

¹⁰⁴ See Chapter 1, pp. 54-5; Giglioli, *Immaginazione e malattia*, Milan 2000, pp. 26-35, 79-80.

¹⁰⁵ William R. Newman, and Lawrence M. Principe, *Alchemy Tried in the Fire: Starkey, Boyle, and the Fate of Helmontian Chymistry*, Chicago 2002, pp. 56-91; Steffen Ducheyne, 'Van Helmont's Mechanical Experiments', in *Neighbours and Territories: The Evolving Identity of Chemistry*, ed. by José Ramón Bertomeu-Sánchez, Duncan Thorburn Burns and Brigitte Van Tiggelen, Louvain-la-Neuve 2006, pp. 253-62.

prepared drugs.¹⁰⁶ The definition reads: ‘The liquor Alkahest of Paracelsus dissolves every visible body into its prime matter, without damaging the power of the seeds’.¹⁰⁷ Even though no one – ancient or modern – could be in the position of making actual Alkahest from this description, there is no use of metaphors, although one might be inclined to see it as a riddle. What the solution Van Helmont called Alkahest actually contained remains a mystery to the present. However, for many other drugs with strange names, such as ‘Diaceltatesson’, highly detailed recipes and methods of production can be found in Van Helmont’s works.¹⁰⁸

Another example is the one relating to distilling urine samples, used by Van Helmont to prove the possibility of finding the cause of a disease by ‘opening’, that is, distilling, bodies, so that the reasons can speak for themselves.¹⁰⁹ In the explanation of his attempt to find what causes bladder stones, one might have the impression that Van Helmont is waxing mystical. However, he actually explained in detail the process he employed. Firstly, he put his own urine in a warm place for a while – eleven days according to the *Dageraed*, or until it started rotting according to the *Opuscula medica inaudita*.¹¹⁰ He then distilled (*distilleerde*, in Dutch; *stillabatur* in Latin) his urine, with a strong smelling result (*scherp van reuk* in Dutch; *acuti, et urinacei odoris factulenti* in Latin).¹¹¹ In both versions of the text, the experiment continues for several pages. The Latin text contains more steps in the experiment than the Dutch, indicating a subsequent and more advanced version of the experiment than the one recorded in the *Dageraed*. Interestingly, Van Helmont does not seem to lack vocabulary in either of his languages to express his experiments. The technical vocabulary for the different glassware and the chemical substances are similar in clarity, as are the descriptions of results, which are based on colour, smell and texture of the resulting substance.

As Dietlinde Goltz already argued in her 1972 article on the Paracelsians and their language, many of Paracelsus’s followers wrote in Latin to make sure Paracelsus’s ideas would survive. They also tried to explain the complicated terminology he used.¹¹² Van Helmont should be seen as part of this tradition, even though his contemporaries did not always understand his vocabulary, as we saw in Margaret Cavendish’s comments. Despite his close links with the

¹⁰⁶ Paulo A. Porto, ‘Summus atque felicissimus salium’: The Medical Relevance of the Liquor Alkahest’, *Bulletin of the History of Medicine* LXXVI (2002), p. 1.

¹⁰⁷ Van Helmont, ‘Explicatio aliquot verborum artis’, in *Opuscula medica inaudita* (1644), sig. *2v: ‘1. Liquor Alcahest Paracelsi, omne corpus visibile, resolvit in primam sui materiam, servata seminum potestate.’

¹⁰⁸ For diaceltatesson recipe, see Van Helmont, *Dageraed*, pp. 186-89, this also includes the dosage for medication.

¹⁰⁹ Van Helmont, ‘Seven-en-twintighste Pael: Oorsaecken van de duelech by de Ouden van ons verscheyden’, in *Dageraed*, p. 242: ‘om te bewijsen wat in een lichaem iet veroorsaect, dan als men de lichaemen soo opent, dat d’oorsaecken u self komen aenspreecken.’ Cfr. Van Helmont, *De Lithiasi*, in *Opuscula medica inaudita*, p. 12: ‘Ita quidem ut cognitio, et connexio causarum non constant clarius, quam cum res ipsas ita reclusis, ut coram prodeant, ac velut tecum loquantur.’

¹¹⁰ Van Helmont, *Dageraed*, pp. 242-46; id., *De Lithiasi*, in *Opuscula medica inaudita*, pp. 12-22.

¹¹¹ Van Helmont, *Dageraed*, p. 242; id., *De Lithiasi*, in *Opuscula medica inaudita*, p. 13.

¹¹² Goltz, ‘Die Paracelsisten und die Sprache’, pp. 344-5.

world of Paracelsian alchemy, Van Helmont elaborated his comprehensive new system of medicine with the aim of being understood by physicians and even ‘neighbours’.¹¹³ Alchemical processes and techniques were described so that they could be understood and repeated, without the use of metaphors or signs.

The Plague

Long before Van Helmont lost his two eldest sons to the plague in Brussels in the mid-1630s, he confronted the most wretched of all diseases. In a chapter on the various illnesses of the body (‘Seste Pael: Van verscheyde teeringen des lijfs’ (‘Of Various Diseases of the Body’)), he explains, in almost exactly the same words as he does in the *Ortus medicinae*, his experiences:

I considered the plague as the most dismal of all diseases, at whose outbreak everyone would leave the sick, so that the learned, distrusting the art, fled more quickly than the bad Alexian monks, nuns and unlearned plague doctors... [*in Latin*: than ignorant ordinary people and uncouth plague healers]. I decided to visit the poor plague sick for three years [*in Dutch*]/[*in Latin*: I therefore decided to devote a year to the wretched people infected by the plague].¹¹⁴

Whether it was one year or three years, Van Helmont certainly had enough opportunities to visit houses affected by the plague in the first decade of the seventeenth century, as the plague was an endemic risk. The illness occurred several times in both the Northern and Southern parts of the Netherlands during this period,¹¹⁵ and the plague of 1635-7, to which Van Helmont lost his sons, seems to have been one of the fiercer outbreaks.¹¹⁶ In 1636 the Dutch physician

¹¹³ Principe, *Secrets of Alchemy*, pp. 134-5.

¹¹⁴ Van Helmont, ‘Seste pael: Van verscheyde teeringen des lijfs’, in *Dageraad*, p. 50: ‘Ich sagh de Pest aen voor de ellendighste der sieckten, dat een ieder verliet den siecken, dat de Geleerden, hen mis-trouwende op de konst, meerder vloden dan slechte Celle-broeders, Nonnen, oft ongeleerde Pest-meesters. [...] Ick nam aen drie jaeren te besoecken d’arme pest-siecken’; Id., ‘Promissa authoris; Columna III, § 7, in *Ortus medicinae*, p. 12: ‘Pestem considerabam morborum calamitosissimum, in quo aegrum quisque disereret, et infidi ausiliatores, arti suae diffidentes, ocius fugerent, quam indocta plebs, rudesque Pestis curatores. Proposui itaque annum unum dicare miseris contagio imbutis.’

¹¹⁵ As Erik Thoen and Isabelle Devos already noticed in their article from 1999, there is very little research published on the plague in the early modern Northern and Southern Netherlands, apart from some very local studies. The two authors give a brief overview of death rates in the Spanish Netherlands, comparing the plague to other diseases. See E. Thoen and I. Devos, ‘Pest in de Zuidelijke Nederlanden tijdens de Middeleeuwen en de moderne tijden: Een *status quaestionis* over de ziekte in haar sociaal-enomische context’, in *De pest in de Nederlanden: Medisch historische beschouwingen 650 jaar na de zwarte dood*, Brussel 1999, pp. 19-43. The only exception to the previous statement by Thoen and Devos is the following book, focussing on the plague in Holland: Leo Noordegraaf and Gerrit Valk, *De gave Gods: De pest in Holland vanaf de late Middeleeuwen*, Bergen (NL) 1988. Up till today, there is unfortunately still very little published on this topic.

¹¹⁶ Noordegraaf and Valk, *De gave Gods*, p. 43. Van Helmont mentions the plague of 1635, which spread, according to him, via the French soldiers who besieged Leuven and transmitted it to Brussels. See ‘Tumulus pestis’, in *Opuscula medica inaudita*, p. 241.

Johan van Beverwijck (1594-1647), a very popular medical author at the time (who wrote only in Dutch), published a short report on the prevention of the plague (*Kort bericht om de pest voor te komen*). His advice was clear: 'He who wants to free the body permanently from the plague, must avoid the infected air and such places, also flee far from there to a healthier country, and return slowly, once the fire is burnt out.'¹¹⁷

Van Helmont gave a different kind of advice, namely, not to be afraid of the plague, as fear will allow the plague to enter one's imagination and make someone ill. Van Helmont's treatise on the plague was published as the second part of the *Dageraed* in 1659, and for the first time in Latin as 'Tumulus pestis' ('The Tomb of Plague'), in the *Opuscula medica inaudita* (1644). It was Van Helmont's opinion that, in order to be able to cure the plague, one had to understand its origin. He argued that the fear (*schrick* in Dutch; *terror* in Latin), for the plague generated a deadly poison capable of overruling the *archeus* and consequently endangering one's health.¹¹⁸ Van Helmont went through his explanation step by step:

Experience has made me believe that by sheer anxiety, one can inflict the plague upon oneself and one's surroundings. From this truth it becomes clear that the image of the imagination, starting from the nakedness of its incorporeal being and the simplicity of thought, can gradually dress and clothe itself with the spirit of life, and leaves its seminal product behind in there; a being truly capable of great and terrible deeds.¹¹⁹

In other words, it is the imagination (*verbeeltenis* in Dutch; *phantasia* in Latin) which elaborates an image out of fear and is able to affect the *archeus* as an actual disease. However, it is not an act of conscious imagination that can trigger this process, as becomes clear from the fact that, although Van Helmont is writing about the plague, he is not immediately struck by the

¹¹⁷ Johan van Beverwijck, *Bericht om de pest voor te komen*, Dordrecht 1636, p. 21: 'Die 't lichaem van de Pest langduerigh wil bevrijden, /Die moet besmette lucht, en sulcke plaetsen mijden. /Oock vluchten verr' van daer, in een gesonder lant, /En keeren langhsaem weer, als 't vyer is uyt-gebrant'. Van Beverwijck continues with ways to prevent and cure the plague for those who are not able to leave the place of contagion or do not want to leave their friends (*ibid.*, p. 21-48).

¹¹⁸ Van Helmont, 'Elfste Pael: Hoe de verbeeltenis uitwerckt', in *Dageraed*, p. 340: 'Nu begint men allengskens 't lant te sien, hoe de schrick van de pest, het pestgif maekt in onsen Archeus.' Van Helmont, 'Tumulus pestis', in *Opuscula medica inaudita*, p. 236: 'Jam eminus apparet littus, quorsum navigamus, et quo pacto terror sit Pater pestis.'

¹¹⁹ Van Helmont, 'Twaelfde Pael: Naerder bewijs der verbeeltenis', in *Dageraed*, p. 341: 'D'Ervarenheydt heeft doen gelooven, dat men mach door schrick sich selven de pest veroorsaecken; dese waerheydt heeft ons bedwongen voorder t'openbaeren, hoe het beelt der verbeeltenis van het onlijvenlijck wesen sijner naeckheydt, en van de simpelheydt eender gedachte, sich allengskens kleet met den geest des levens in de milte, oft moeder-vat, en wordt bequaem tot groote daeden.'; Id., 'Tumulus pestis', in *Opuscula medica inaudita*, p. 237: 'Saepe fidem experientia fecit, quod quis terrore solo, Pestem absentem sibi atque suis paraverit. Quae veritas ostendit, quod imago phantasiae, ab incorporeo suae nuditatis esse, et cogitationis simplicitate, se paulatim vestiat, induatque vitae spiritum, et in eo sui productum seminale relinquat: ens sane, ad magna atque terribilia facinora promissimum.' The two versions of the text are not exactly identical, so uses Van Helmont to verbs to indicate that image 'dresses' itself with the spirit of life, which leads in Dutch to 'great deeds' only, instead of 'great and terrible'. Nevertheless, the gist of the passage is the same.

plague.¹²⁰ The second factor cannot be the will either, since no sane person would want to become ill. Therefore Van Helmont claims in his explanation that it has to be a certain belief, through which someone imagines to have caught the plague. And since no one doubts that the plague is a mortal disease, this anxiety instantly induces the image of the plague and renders it active.¹²¹ Again, the belief that the plague is mortal is not harmful in itself, only when it is connected to fear or anxiety. Guido Giglioli explains that the imagination is of major importance for Van Helmont's concept of disease and that the treatise on the plague represents a case study of that theory.¹²² Although Van Helmont emphasises the importance of prevention by arguing that avoiding or controlling the fear of plague will ward off the contagion, he nevertheless comes up with three main forms of medication: several recipes based on ancient sources; the *zenexton* (that is, a plague amulet) and the power of words, herbs and stones. Van Helmont's principle of healing is in line with his ideas about the role of the *archeus*, which, in case of illness, becomes overruled by the actual disease. In Van Helmont medical theory, therefore, medication needs to help and support the *archeus*, so that it will have enough power to remove the illness from the body.¹²³

In his chapter on the healing of the plague ('Seventiende pael: Genesinge der pest' ('Recovery of the Plague')), corresponding to the chapter 'Hippocrates redivivus' (Hippocrates brought back to Life') in the Latin version, Van Helmont examined several ancient remedies against the plague. One of the old remedies assumed that 'the plague wants to be punished and expelled with sweat and blood, more than with the goodness of remedies, because it sits in the poison, which is the mental image of the fear of the *archeus*'.¹²⁴ He therefore provided several methods of making people sweat, through so called sweat potions (*sweet-drancken* in Dutch; *sudorifera* in Latin), and recipes in the *Dageraed* for the *Antidotus Saxonica* and the 'Secret of Orvieto'. The latter one he gave in Italian, with measurements added in Dutch. He commented: 'I have

¹²⁰ Van Helmont, 'Twaelfde Pael: Naerder bewijs der verbeeltenis', in *Dageraed*, p. 342: 'maer dat een mensch sonder schrick, met een vol gepeys der ziele en wille, peyst op de pest (soo ick nu doe, schrijvende dit boecxken) en nochtans de pest niet en bekomt'; Id., 'Tumulus pestis', in *Opuscula medica inaudita*, p. 237: 'Ego periter de Peste scribens absque terrore, in pleno velle, et conceptu cogitantis animae, multa de Peste meditor: non tamen ob id hanc mihi contraho.'

¹²¹ Van Helmont, 'Twaelfde Pael: Naerder bewijs der verbeeltenis', in *Dageraed*, p. 343: 'waer door dan eerst (en anders niet) het beelt der pest door den schrick met eenen geboren is, en vruchtbaer oft werkende geworden'; Id., 'Tumulus pestis', in *Opuscula medica inaudita*, p. 238: 'Unde (nec enim prius) Pestis imago, per hujusmodi terrorem concepta, operans et faecunda evasit.'

¹²² See Giglioli, *Immaginazione e malattia*, Chapter 3 ('La malattia'), pp. 97-133, esp. pp. 116-24.

¹²³ Van Helmont, 'De virtute magna verborum ac rerum', in *Ortus medicinae*, p. 755: 'qualitatis remediorum agunt duntaxat, quatenus inducunt Archeum ad operandum, juxta destinationem suae alterationis, et motus; hoc est dicere, activitas non est primaria ac per se, ipsius medicaminis, sed est primaria ejusdem operatio, ipsius Archei, quam a medicamine sibi formavit.'

¹²⁴ Van Helmont, 'Seventiende Pael: Genesinge der pest', in *Dageraed*, p. 382: 'De pest wil met sweet and bloedt, geboet en gedreven worden, meer dan door de goetheyt der remedien: want sy sit in een gift, 't welck een geestelijck beeldt des schricks Archei is.' The same passage seems not to be present in the Latin version.

written this in the language in which I received it, and in which I saw it being used against poison, but the above goes much further.¹²⁵

The second remedy against the plague is the *zenexton*, which receives different definitions in the first edition of the *Opuscula medica inaudita* (1644): ‘The Zenexton of Paracelsus: an amulet against the plague’.¹²⁶ In the last edition of the *Ortus medicinae* (1707), it is presented as ‘Zenexton or Xenecton: known as an amulet, which our van Helmont produced from dirt and worms exuded from the eyes of toads’, or it can be prepared from *arsenicum* as described by Nicolas Guibert in his *Discourse on the Plague*.¹²⁷ The explanations in the *Ortus medicinae* are often more elaborate than the explanations in the *Opuscula medica inaudita*, but the fact that the *zenexton* is not connected to Paracelsus in the later editions might indicate that Van Helmont was regarded as the author of the remedy by this time. Nevertheless, Van Helmont himself credits Paracelsus for this remedy, although he corrects him on many levels. The actual medicine is made of toads (*padde*, in Dutch; *bufo*, in Latin), with a method that is too gruesome to bear repeating.¹²⁸ However, it is based on the premise that toads eat soil (*aert; terra*), which makes them comparable to snakes who do that out of animosity towards mankind, according to Van Helmont, who backs up his claims by appealing to the Scripture. Referring to the Song of Zacharias (Luke 1: 68-79): ‘salvation comes from our enemies and out of the hand of those who hate us’, Van Helmont turns the amulets made out of toads into the best medication against plague.¹²⁹ They can be used as prevention (hung at the level of the heart to have the greatest effect), or used on actual buboes from the plague. The poison of the toad kills the yeast (*deesseem; fermentum*), which the disease needed to live in the body of the patient.¹³⁰ Hence, it is not the plague that is killed by the hatred of the toad, but the nourishment on which the plague was feeding. And as soon as this falls away, the plague poison will also disperse, as it is nothing else than the image of fear (*beeldt des schricks; productum imaginis, terroris Arbei*).

¹²⁵ Van Helmont, ‘Seventiende Pael: Genesinge der pest’, in *Dageraed*, pp. 384-5: ‘Ick heb dit in zijn taele gestelt, soo ick ’t heb bekomen, en sien gebruycken tegen het ingenomen gift; maer het voorgaende gaet verre voren.’

¹²⁶ Van Helmont, ‘Explicatio aliquot verborum artis’, in *Opuscula medica inaudita* (1644), sig. *2v: ‘Zenexton Paracelsi, Amuletum contra pestem.’

¹²⁷ Van Helmont, ‘Clavis ad obscuriorum sensum reserandum’, in *Ortus medicinae*, sig. F3v: ‘Zenexton vel xenexton: Amuletum notat, quod Helmontius noster e sordibus et vermiculis oculis bufonum elapsis parat. Alias vero ex Arsenico, per ignorantiam linguae Arabicae, conficitur, cum Arsenicum Arabicum canellam denotet, e que comminuta amuleta sua conficiebant, observante D. Guiberto in *Discursu de Peste pag. 469*.’

¹²⁸ For the method of processing the toad, see Van Helmont, ‘Zenexton’, in *Dageraed*, pp. 401-2; and id., ‘Tumulus pestis’, in *Opuscula medica inaudita*, p. 265. Interesting here is also that the Dutch text gives the name of one of the Dutch intermediaries in giving the recipe to Van Helmont (Joris Riesch), whereas the Latin text names the London source, an Irishman called Butler.

¹²⁹ ‘Salutem ex inimicis nostris, et de manu eorum qui oderunt nos’, as quoted in Van Helmont, *Dageraed*, p. 402; id., *Opuscula medica inaudita*, p. 266.

¹³⁰ Van Helmont, *Dageraed*, p. 403; id., *Opuscula medica inaudita*, p. 266.

One last remedy that needs mentioning here is Van Helmont's belief in the power of words, herbs and stones. He dealt with these matters in two treatises in the *Ortus medicinae*, and although there is no chapter in the *Dageraed* devoted to this way of treating diseases, it is mentioned in the chapter on *zenexton*, where the claim is made that 'the basis for the [effect] of the zenexton is words. In words, herbs and stones is great virtue'.¹³¹ In his treatise 'De virtute magna verborum ac rerum' ('On the Great Power of Words and Things'), Van Helmont explained that images of the mind could only imprint diseases in human bodies, but they could also cure them.¹³² And therefore, an image such as the fear of the plague could be counter-acted by a healthy image.

Therefore, in the case of diseases that are caused by ideas of disorders, if these ideas are not immediately calmed down by ideas of contrary disorders, the *archeus* has to be curbed with imperative and soothing words, with herbs and stones, in which is great power, so that opposite ideas are formed in the *archeus*.¹³³

The words referred to by Van Helmont are all based on the Word of God. He is nowhere explicit about the actual words, even though he devotes most of the treatise to the power of words. Interestingly, in the other treatise on this topic, entitled 'In verbis, herbis, et lapidibus est magna virtus' ('There Is Great Power in Words, Herbs and Stones') Van Helmont says that he 'spoke frankly about the great power of words, which he admires more than uses'.¹³⁴ This is the only reference to the power of words in the treatise.¹³⁵

The power of words in the process of healing is directly connected to Van Helmont's philosophy of the mind, like the words and images produced by the imagination, which are perceived by internal or external senses. These images are formed and made active in the sensitive soul, and work upon the physical body of man. But the words used for curing the ill

¹³¹ Van Helmont, *Dageraed*, p. 395: 'Des zenextons gront leydt in de woorden. in woorden, kruyden, en steenen is groote deught.'

¹³² Van Helmont, 'De virtute magna verborum ac rerum', in *Ortus medicinae*, p. 759: 'Siquidem Archeum confortant ejusmodi facultates, ut roberetur per ipsasmet Ideas, a se fabricatas. Etenim non secus atque Ideae, primariorum morborum sunt typi; Ita sane, et Ideae facultatum, sive conceptuum animae, non possunt non magnam vim sanandi continere.'

¹³³ Ibid.: 'De virtute magna verborum ac rerum', in *Ortus medicinae*, p. 764: 'Quapropter morbi, qui ab Ideis perturbationum excitantur, si non Ideis e contrariis perturbationibus confestim sedentur, reprimendus est Archeus per verba imperativa, sedativa, per herbas, aut lapides, quibus magna virtus in est, producendi in Archeum oppositam Ideam.'

¹³⁴ Van Helmont, 'In verbis, herbis, et lapidibus est magna virtus', in *Ortus medicinae*, p. 546: 'De magna virtute verborum quaedam ingenue dixi, quae plus admiror, quam applico.'

¹³⁵ The treatise 'In verbis, herbis, et lapidibus est magna virtus' is published in the first 1648 edition of the *Ortus medicinae*, whereas the second treatise 'De virtute magna verborum ac rerum', which in fact deals with the power of words, only gets published in the sixth edition, printed in Frankfurt in 1682. The 1683 German translation includes this treatise, mentioning it on the title-page, as a hitherto unpublished work by Van Helmont. It has previously been doubted whether this treatise is really by Van Helmont, but based on the subjects discussed, in perfect addition to the previously published treatise, in which Van Helmont mentions himself that he already wrote on the power of words, and the very familiar style of Van Helmont, I do believe that this is a genuine Van Helmont text.

cannot be known by man. However, they can be granted to man by God.¹³⁶ This means also that they would have to be received in the kind of imagination that is more closely connected to the intellect, and have no direct relation to the words Van Helmont uses to describe his medical writings. One would expect them to be verbalized in the mother tongue, if we were to follow Van Helmont's translational steps from thought to word, but unfortunately Van Helmont is not commenting on the language of healing words.

The treatises on the plague in both Dutch and Latin are extensive texts on this threatening disease. Although Van Helmont's version in Latin is slightly longer than the one in Dutch, the *Dageraed* nevertheless includes passages that are not present in the *Ortus medicinae*, such as recipes for medicines. Paracelsian terminology, such as *zenexton* and *archeus* are once again similarly used in both languages. The recipe for the plague antidote from Saxony also follows Van Helmont's familiar way of including the Latin terms for ingredients, followed by the Dutch translation. This reveals once again that Van Helmont was probably more familiar with the Latin terminology than with the Dutch, and was aware of a similar disposition amongst his readers, which made him include the terms in both languages.

Conclusions

By examining a number of technical terms in both the *Dageraed* and the *Ortus medicinae*, we can draw the conclusion that Van Helmont uses both Dutch and Latin in accordance with very similar syntactical and stylistic patterns. More than once, we find almost verbatim translations, as in the example of *peroledi* mentioned above. What becomes clear from reading both texts side-by-side is that the *Dageraed* was conceived as one coherent work, whereas the contents of the *Ortus medicinae* are more scattered and less structured. Subjects recur in several treatises and are discussed in different contexts, as for example 'winds' in the chapter on winds as well as in the chapter on vacuum. Taken together these treatises most likely reflect the progress of Van Helmont's research and the development of the language which he used to express it.

If the *Ortus medicinae* was his 'work space', then this could explain the literal translations of texts that appear in both Latin and Dutch, as Van Helmont possibly made extracts from his Latin texts. This also explains the conciseness and cohesion of the *Dageraed*, with subjects described in one or two designated chapters (or 'posts'), as opposed to the Latin version in which they are described more extensively, but dispersed over various chapters. The analysis of the *Dageraed* alongside the *Ortus medicinae* calls into question Pagel's claim the *Dageraed* is 'shorter, simpler and

¹³⁶ Van Helmont, 'De virtute magna verborum ac rerum', in *Ortus medicinae*, p. 758: 'Cognoscere autem, quibus verbis, herbis, et lapidibus, insit magna illa Virtus, non est discretionis humanae, sed coelitus, gratisque datur hominibus bonae voluntatis, quos sane, non nisi ex operibus charitatis, uti arborem e fructibus, judicamus.'

more factual' than the *Ortus medicinae*. On the contrary, the *Dageraed* was Van Helmont's only genuine book, written and conceived as his comprehensive study of the world, mankind and medicine.¹³⁷ Also, the assumption, based on Van Helmont's own philosophy of language, that he would have written the *Dageraed* at an earlier stage in his life, or at least before the *Ortus medicinae*, does not seem not to correspond with the impression engendered by a comparison of the two texts. In the *Dageraed* Van Helmont mentions the year 1632 in one of the chapters on the plague, which is also the latest date mentioned in the text, meaning that it was at least partly written in or after this year.¹³⁸ Van Helmont was 53 years old at that time, a published author (in Latin) at a moment in his life between the second and third round of interrogations based on charges brought against him due to his earlier publications. Dates and years are rare in Van Helmont's texts but do occur, mainly in connection with observations he made of patients or events, or of dreams that occurred to him. Hence, the *Dageraed* is not a lesser version of the *Ortus medicinae*, even though it is shorter. The literal, verbatim translations between *Dageraed* and *Ortus medicinae* in some places and the paraphrasing, summarizing parts in other places, are all written in the same difficult Helmontian writing style. The development of ideas, as well as the dates that appear reveal that the book was written at a stage in his life in which his ideas were fully developed.

Looking at Van Helmont's language, it has become clear that the translational step of his ideas from his mother tongue into Latin does not reflect negatively in either the style or the meaning of the texts. This stands, however, in a curious contrast to Van Helmont's own philosophy, in which he claimed that truth, and therefore value, would be partially lost during the obscuring translation process in the mind. In fact, Van Helmont's Dutch is more obscure than his Latin, and is strongly influenced by Latin syntax. We have seen that Van Helmont often explains his use of Dutch terminology by adding the equivalent Latin term within brackets. The fact the practice diverges from his philosophy might not only reflect Van Helmont's own education in Latin, and therefore his fluency in this language. Rather it can be taken a step further, suggesting that terminology and a more general 'professional writing' came to his mind in Latin instead of Dutch. This in turn might stem from a mind such as his which was used to reading, discussing and writing his medical ideas in Latin. The situation is not without its modern parallels. Many professionals nowadays find themselves in the awkward situation that they have difficulties talking about their work or research topics in their mother tongues. Their professional language (often English) has become the first language for those specific situations.¹³⁹ In Van Helmont's case, this would lead to translation back into his mother tongue, rather than his mother tongue representing the point of departure for his thinking. Or, to put it differently, in some cases Latin

¹³⁷ Pagel, *Joan Baptista Van Helmont*, p. 14.

¹³⁸ Van Helmont, 'Van de teecken en der pest', in *Dageraed*, p. 368.

¹³⁹ François Grosjean, 'The Bilingual Individual', *Interpreting II* (1997), pp. 164-5.

might have been his first language (mother tongue does not seem the appropriate term in this case) in which his ideas were expressed. This would explain his very Latin-based syntax in Dutch, and it could even explain his choice to write the bulk of his works in Latin, as this language would have come easier to him, and was therefore clearer and took less effort than writing in Dutch.

Van Helmont presented himself as a scholar-physician, an alchemist in the tradition of Paracelsus, who acquired knowledge not through books, but from experience. This tradition came with the use of vernacular languages, even though most of Paracelsus's prominent followers used Latin as their language of communication. This message of reaching out to a non-academic audience is very obvious in Van Helmont's introductions in which he explains his choice of language. In my opinion, this is not only a humble statement and rhetorical flourish employed to defend his choice for the vernacular. It also represents a way of self-fashioning which allowed him to present himself as a follower (or new leader) in the new experimental philosophy and medicine. That the vernacular revealed itself to be not so accommodating for the development of his thought as one might have expected from his philosophy had several reasons. It was not caused by the lack of available vocabulary. Dutch had achieved a high level of sophistication in that regard at the moment of Van Helmont's writing, as we can see for example from Johan van Beverwijck and his medical writings. Rather, it was partly the audience he did not reach with his book in Dutch probably because of the content, which was far from non-academic.¹⁴⁰ From the lack of signs of readership in still existent copies of the *Dageraad* and the lack of contemporary references to the *Dageraad*, it can be suggested that the book was not very popular. This in contrast to Van Beverwijck's books, which had an easy writing and reading style, interspersed with poems by Jacob Cats and emblems, and which sold, as a result, like hot cakes. Another reason for not writing in Dutch was Van Helmont's own perception of language. Despite his defence of the mother tongue as being closer to the truth, Latin seems to have been his professional, working language. The way he writes in Latin is reflected in his Dutch when he writes about medicine, and the way he explains terminology in Dutch with the Latin term in brackets behind it suggests once more that he needed the Latin term and thought his audience would need it too. Therefore, the self-translation of Van Helmont occurred more from Latin to Dutch than vice versa. His own philosophy of language, so neatly set out to underline his Paracelsian approach to scholarship and medicine, needs to be checked against the actual practice of translating, which predominantly took place from Latin into Dutch, instead of the other way around. And for the reasons explained in his introduction he stuck to the

¹⁴⁰ None of the many copies of the *Dageraad* I have seen in the many libraries both in the UK and on the continent, during the past four years, have annotations or any other signs of usage. Except for one (Royal Library Brussels, *Dageraad*, L.P. 6697 A.), which has a poem written on the first flyleaf glued to the next leaf. The poem speaks of a 'ghost of learning' who is trying to stimulate the owner of the book, a certain student called Geraert, to study this book instead of drinking.

language in which the ideas came to his mind in the first place. He simply seems to have underestimated his own proficiency in Latin.

Year	Author/Translator	Title	Place of Publication/Text	Country	Publisher
1621	J. B. Van Helmont	<i>Disputatio de magnetica vulnerum</i>	Paris	France	Victor Leroy
1624	J. B. Van Helmont	<i>Supplementum de Spadanis fontibus</i>	Liege	Spanish Netherlands	Leonard Streeel [Strael]
1642	J. B. Van Helmont	<i>Februm doctrina inaudita</i>	Antwerp	Spanish Netherlands	Jan Cnobbaert
1644	J. B. Van Helmont	<i>Opuscula medica inaudita</i>	Cologne	Germany	Jodocus Kalcoven
1648	J. B. Van Helmont	<i>Ortus medicinae</i> , 1st ed. + <i>Opuscula</i>	Amsterdam	Dutch Republic	Lowijs III Elsevier
1650	Walter Charleton (tr.)	<i>A ternary of paradoxes</i>	London	England	William Lee
1650	Walter Charleton (tr.)	<i>Deliramenta catarrhi</i>	London	England	William Lee
1651	J. B. Van Helmont	<i>Ortus medicinae</i> , 2nd ed. + <i>Opuscula</i>	Venice	Italy	Juntas & Joan Jacobus Hertz
1652	J. B. Van Helmont	<i>Ortus medicinae</i> , 3rd ed. + <i>Opuscula</i>	Amsterdam	Dutch Republic	Lowijs III Elsevier
1652	Abraham Bauda (tr.)	<i>Doctrine Nouvelle [...] Touchant les Fievres</i>	Sedan	France	Jean Jannon
1655	J. B. Van Helmont	<i>Ortus medicinae</i> , 4th ed. + <i>Opuscula</i>	Lyon	France	Joannis Baptista Devenet
1659	J. B. Van Helmont	<i>Dageraad</i>	Amsterdam	Dutch Republic	Jan Jacobsz. Schipper
1660	J. B. Van Helmont	<i>Dageraad</i>	Rotterdam	Dutch Republic	Joannes Naeranus
1662	John Chandler (tr.)	<i>Oriatrike</i>	London	England	Lodowick Loyd
1664	John Chandler (tr.)	<i>Van Helmont's Works</i>	London	England	Lodowick Loyd
1667	J. B. Van Helmont	<i>Ortus medicinae</i> , 5th ed. + <i>Opuscula</i>	Lyon	France	A. Huguetan, & Guillaume Barbier
1670	Jean le Conte (tr.)	<i>Les Oeuvres de Jean Baptiste Van Helmont</i>	Lyon	France	A. Huguetan, & Guillaume Barbier
1680s	Daniel Foote (tr.)	Translations of various Van Helmont works	London	England	N/A
1681	Johannes Henricus Seyfrid (tr.)	<i>Tumulus pestis</i>	Sulzbach	Germany	Abraham Lichtenthaler
1682	J. B. Van Helmont	<i>Opera Omnia (Ortus 6th ed.) + Opuscula</i>	Frankfurt	Germany	Johann Just Erythropel
1683	Chr. Knorr von Rosenroth (tr.)	<i>Aufgang der Artzney-Kunst</i>	Sulzbach	Germany	Johann Andreas Endter Sel. Söhne
1707	J. B. Van Helmont	<i>Opera Omnia (Ortus 7th ed.) + Opuscula</i>	Frankfurt	Germany	Hieronymus Christian Paulli

Table 3.1: All translations and editions of the works of Jan Baptista van Helmont.

CHAPTER 3: The Role of Francis Mercury in Disseminating the Works of His Father

*Nil patre inferior jacet hic Helmontius alter
Qui junxit varias mentis et artis opes;
Per quem Pythagoras et Cabbala sacra revixit,
Elaeusque potest qui dare cuncta sibi.
Quod si Graja virum tellus, et prisca tulissent
Secula, nunc inter lumina prima foret*

Gottfried Wilhelm Leibniz¹

Amongst early modern artisans and painters it is not uncommon to find sons taking up the profession, continuing the family business and perpetuating the fame of their fathers. One thinks of Pieter Bruegel the Elder (1525-1569), and the Younger (1564/5-1636), and the latter's brother Jan Bruegel (1568-1625), who was in his turn the father of Jan Bruegel the Younger (1601-1678). Two more famous father-son examples are Hans Holbein the Elder (1465-1524) and the Younger (1497-1543); and the Elder (1472-1553) and Younger Lucas Cranach (1515-1586). That in each case father and son share the same first name might seem unrelated to their success, but who knows, after all, what is in a name? Also among early modern scholars there is a rather long list of sons who stepped into their fathers' footsteps. Isaac Casaubon (1559-1614), the renowned classical philologist, was followed by his son Meric (1599-1671), who would, however, always stand in the shadow of his father; a situation which he acknowledged by signing his scholarly works 'son of Isaac'.² After his older brother Jean decided to become a monk, the care of his father's papers fell to him.³ This inheritance would never be published, but Meric had the papers bound in several volumes, and in this form they would later enter the collections of the British Library.⁴ Julius Caesar Scaliger (1484-1558) and his son Joseph Justus Scaliger (1540-1609) are a further example of inherited scholarly fame, but in this case the son would eventually rise to outshine the father. Joseph also inherited his father's papers, which he

¹ For Leibniz's epitaph on the death of Francis Mercury van Helmont, see Niedersächsische Landesbibliothek, Hanover, MS Helmont, LBr 389, fol. 125. The translation (partly taken from Allison P. Coudert, *The Impact of the Kabbalah in the Seventeenth Century: The Life and Thought of Francis Mercury van Helmont*, Leiden 1999, p. xiii) reads: 'Here lies the other Van Helmont, in no way inferior to his father /He joined together the powers of both reason and art. /Through him Pythagoras and the sacred Kabbalah were brought back to life, / And like that philosopher from Elis [i.e., Hippias], he can procure everything for himself /Had he been born in earlier centuries among the Greeks, /He would now be numbered among the leading lights.'

² Richard Serjeantson, 'Casaubon, (Florence Estienne) Meric (1599-1671)', in *ODNB* [<http://0-www.oxforddnb.com.catalogue.oxforddnb.com/view/article/4852>, accessed 14 June 2014]. Thanks to Jill Krayer for making me aware of these father-son relationships.

³ Joseph Justus Scaliger, *The Correspondence of Joseph Justus Scaliger*, ed. by Paul Botley and Dirk van Miert, 8 vols, Geneva 2012, I, pp. xxii-xxiii.

⁴ London, BL, Burney MSS 363-7.

was planning to publish, or at least parts of it, but never managed to do so.⁵ Gerard (1577-1649) and Isaac Vossius (1618-1689) form yet another example of a father and a son who worked in the same field of classical scholarship. Isaac was home-schooled by his father, just like Francis Mercury van Helmont.⁶ Isaac would grow up to be another classicist, influenced by his father's ideas, but also by the scholars in his father's network. He was thus privileged by an inheritance of knowledge and intellectual networks, from which he picked the fruits.⁷

It is against this background of early modern scholarship as a 'family business', that this chapter should be read.⁸ The inheritance bequeathed from father to son extended far beyond the material papers that the sons might choose to publish or simply preserve. Rather, the social and intellectual capital that these sons inherited gave them a head-start on many less fortunate scholars.⁹ Jan Baptista himself came from a noble background which came with its own 'capital'. Partly due to the early death of his father, and his own desire to help people, he was sent to university to learn a profession. This event and the sadness and embarrassment it caused his family is described in his treatise on the plague.¹⁰ His own sons, on the other hand, were all trained as physicians at home by himself – and as the only surviving son at the time of his father's death, it was only natural that Francis Mercury should take charge of the rich legacy of learning the elder Van Helmont left behind.

The father, the author - the son, the editor

In 1648, Jan Baptista van Helmont's main work, the *Ortus medicinae*, was published by his youngest son Francis Mercury. Although Van Helmont was already praised and admired and his theories were put into practice, the peak of his popularity came in the decades after the publication of the *Ortus medicinae*. It appeared in seven successive editions, the last of which was published in 1707, and was also translated numerous times in both print and manuscript during this period. On top of that, many commentaries (again, both in print and manuscript) were written on his theories, not to mention a rich exchange of letters within the Republic of Letters.

⁵ Anthony Grafton, *Joseph Scaliger: A Study in the History of Classical Scholarship*, 2 vols, Oxford 1983-93, II, p. 749.

⁶ F. F. Blok, *Isaac Vossius en zijn kring: Zijn leven tot zijn afscheid van Koningin Christina van Zweden 1618-1655*, Groningen 1999, pp. 20-2.

⁷ Eric Jorink, and Dirk van Miert, 'Introduction', in *Isaac Vossius (1618-1689) between Science and Scholarship*, ed. by Eric Jorink and Dirk van Miert, Leiden 2012, p. 6; see also Dirk van Miert, 'The French Connection: From Casaubon and Scaliger, via Saumaise, to Isaac Vossius', in *ibid.*, pp. 16-42.

⁸ See for inheritance of scholarship within families also Martin Mulsow, *Prekäres Wissen: Eine andere Ideengeschichte der Frühen Neuzeit*, Berlin 2012, Ch. 10 ('Familiengeheimnisse: Prekärer Transfer im inneren Zirkel'), pp. 276-87.

⁹ I am employing the concept of 'social and intellectual capital', as developed by Pierre Bourdieu, for example most pertinently in his book *Homo Academicus*, Stanford 1988, pp. 77-83.

¹⁰ Jan Baptista van Helmont, 'Tumulus pestis', in *Opuscula medica inaudita*, p. 207-8: 'Indignatusque mecum dolui, qui nobilis essem, quod invita matre, insciis agnatis, primus in nostra familia medicinae me nuncupassem.'

Several studies have examined the influence of the father's views and education on the son's religious, mystical and scientific ideas as we know them from the latter's publications.¹¹ However, most authors focus on either the father or the son, one to the exclusion of the other; the father sets the scene for a study of the son, or alternatively, the son features only in the epilogue for a study of the father. What has so far been overlooked is the influence of the son in the dissemination of his father's works beyond the first edition. Francis Mercury became known as the editor of Jan Baptista's works, firstly because he had become the keeper of his father's secrets through his inheritance and his father's instructions from his deathbed, as we shall read below, and secondly because he would quickly extend his role to become in fact an entrepreneur dealing in his father's knowledge. This chapter will show that there are strong connections between the various editions and translations of Van Helmont's works that appeared throughout Europe during the seventeenth century and Francis Mercury's life and career. The history of the posthumous editions and translations of Jan Baptista's works are indissolubly connected with the life of his son. For reference throughout the chapter, I refer the reader to Table 3.1 at the beginning of the chapter, which shows all the editions and translations of Van Helmont's works in chronological order.

On Jan Baptista's deathbed

A few days before his death, he said to me: 'Take all my written works, those unfinished and uncorrected as well as those that have been thoroughly amended, and put them together. I now commit them to your care; do everything according to your judgement. Thus wanted the Almighty God, who undertakes everthing with power, and rules over it with clemency'. Therefore, attentive reader, I ask you not to judge me wrongly at first sight, as I have seen to it that his unfinished writings were printed mixed with the more polished ones, the former not having been edited or corrected yet. You should know that the reason was my desire to promote this important treatise, based on so much work. Finally, eager Reader, I hope you may feel fully satisfied by reading both kinds of writing. At that point, you will realise that I carried out everything in a proper and accurate manner, without seeking anything for my own profit, as will appear from this preface of mine.¹²

¹¹ See Coudert, *The Impact of the Kabbalah*, Ch. 1 ('The Early Life of Francis Mercury van Helmont'), pp. 1-20; Marjorie Hope Nicolson and Sarah Hutton (eds), *The Conway Letters: The Correspondence of Anne, Viscountess Conway, Henry More and Their Friends: 1642-1684*, Oxford 1992 [hereafter *Conway Letters*]; and Sarah Hutton, *Anne Conway: A Woman Philosopher*, Cambridge 2004, Ch. 7 ('Physic and philosophy: Van Helmont, Father and Son'), pp. 140-55.

¹² Francis Mercury van Helmont, 'Vita authoris', in J. B. van Helmont, *Ortus medicinae*, sig. [B4]^r: 'Paucis diebus obitum ejus praecedentibus, inquibat mihi: "Cape omnia mea scripta, tam cruda et incorrecta,

This frequently quoted passage is part of the preface that Francis Mercury van Helmont wrote for the first edition of the *Ortus medicinae* (Amsterdam, 1648). Although it is a rhetorical commonplace to explain the origin of the book to the reader, to ask for a positive judgment and to apologize for possible mistakes (even though here it is the editor apologizing for the author), this preface does present us with an actual historical account. Francis Mercury is quoting his father's wish to publish all his unpublished writings. It is an account that is preceded by a detailed description of the last few days of his father's life. What is more, not only was this passage attached, in some way or another, to all later editions and translations; it also became Francis Mercury's licence to travel through Europe in order to publish his father's works, to forge connections with people willing to give him access to their circles on the merit of his father's name and works, and, eventually, to become a crucial intermediary in the world of authors, printers, translators and book-sellers.

Francis Mercury was born in 1614, the youngest in a family of five children.¹³ Apparently, his father decided to call him 'Mercury' because he had just managed to produce some alchemical transmutation.¹⁴ Living in Vilvorde, a small town close to Brussels, where Jan Baptista had his own laboratory, gave him the opportunity to continue his chemical experiments until 1616, when the whole family moved to Brussels. In 1607, before Francis Mercury's birth, Jan Baptista had already written one work, *Eisagoge in artem medicam a Paracelso restitutam*, which has survived in manuscript and was edited and published only in 1853. The original can still be found in the archiepiscopal archives in Mechelen (close to Brussels).¹⁵

Shortly after completing this unpublished treatise Jan Baptista van Helmont's curiosity was aroused and his (intellectual) anger provoked, as can be read in the introduction to his first published work in 1621, *De magnetica vulnerum curatione* ("The magnetic cure of wounds") in which he looked back at his own past:

In 1608, I was informed about a declamatory oration held in Marburg. In the oration, Rudolf Goelenius (to whom was recently entrusted a professorship in philosophy)

quam penitus expurgata, eaque conjunge; tuae curae nunc illa committo; omnia ad arbitrium tuum peragito. Omnipotenti Domino ita placuit, qui omnia fortiter aggreditur, omniaque benigne dirigit." Idcirco, Lector attente, rogo, ne primo intuitu inique me judices, quod crudiora scripta maturioribus permixta excudi curaverim, illis non restituis, correctisve. Scito, magnum et laboriosum hoc opus provehendi desiderium causam fuisse: Nihilo secius tandem experiare, avidum Lectorem in hoc et praedictis omnimodo exsatiatum iri, tumque probe ac fideliter omnia me peregrisse judicabis, nihil proprio lucro quaerens, quod plenius ex hac mea praefatione elucescet.'

¹³ As already mentioned in the Introduction (p. 20), the number of Jan Baptista's children is still debated by scholars. However, relying on references in Van Helmont's works, we can assume that he had at least five children, that is, two daughters and three sons, and that Francis Mercury was the youngest.

¹⁴ Louis Figuier, *L'alchimie et les Alchimistes: Essai historique et critique sur la philosophie hermétique*, 3rd ed., Paris 1860, p. 241.

¹⁵ Corneille Broeckx, 'Le premier ouvrage (*Eisagoge in artem medicam, a Paracelso restitutam*, 1607) de J. B. Van Helmont', *Annales de l'Académie Archéologique Belgique*, X and XI (1853), pp. 327–392 and 119–191. Originals are in Mechelen, AAM, MS Van Helmont, *Eisagoge*, ff. 9^r-87^v.

made the first results of his research public and tried to demonstrate that the treatment of wounds through the sympathetic and weapon salve discovered by Paracelsus was absolutely natural. I read the whole oration and sighed over the fact that natural history had found such a weak advocate.¹⁶

Goclenius's oration to which Van Helmont was referring here had been published 1608. That publication triggered a heated debate about the cause of sympathetic relationships among objects and specifically about whether they were caused by natural magic or the devil.¹⁷ Van Helmont was drawn into the discussion and wrote his own answer, with the title *Disputatio de magnetica vulnerum curatione*. The manuscript was finished in 1617, but not published until 1621, due to many complications, as he explained in a letter written in Dutch.¹⁸

Honourable gentlemen,

Remacle Roberti, late general of the vinres [?] requested from me instantly that I should write against the anatomist D. Jean Roberti, Jesuit, his beloved brother, and that I should, as he put it, wage war against him.¹⁹ In the year 1617, I then wrote a booklet in favour of the magnetic cure of wounds, against the opinions of the aforementioned Jesuit, in the form of a disputation. This was sent to him; he, having discussed it with me, requested that I make it public, very much praising my great mind etc. Thinking the matter was as good as approved by him, I gave [the manuscript] to a man from Liège, to have it printed in Liège, where it was approved by the Vicar Stenartius (for which I have some proof). However, he later withdrew his approval (on the request of the aforementioned Jesuit) without notifying the printer Hovius.²⁰ I would gladly have seen it printed back then, and in my understanding it was also approved, and nothing else.

¹⁶ Jan Baptista van Helmont, 'De magnetica vulnerum curatione', in *Ortus medicinae*, p. 703: 'Anno octavo hujus seculi, allata est mihi oratio declamatoria habita Marpurgi Cattorum, qua Rodolfus Goclenius, (cui noviter demandata erat professio Philosophica) primitias exsolvens, conatur vulnerum sanationem, per unguentum Sympatheticum et Armarium a Paracelso inventam, ostendere esse mere naturalem. Quam orationem legi totam, et ingemui, naturalium rerum historiae tam debilem patronum obtigisse.'

¹⁷ For an account of the 'weapon-salve debate', see Carlos Ziller Camenietzki, 'Jesuits and Alchemy in the Early Seventeenth Century: Father Johannes Roberti and the Weapon-Salve Controversy', *Ambix* XLVIII (2001), pp. 83–101; Stephen Philip Pumfrey, 'William Gilbert's Magnetical Philosophy 1580-1684: The Creation and Dissolution of a Discipline', Ph.D. thesis, The Warburg Institute, University of London 1987. For an overview of the treatises published in the early seventeenth century see Sylvester Rattray et al., *Theatrum sympatheticum auctum*, Nuremberg 1662.

¹⁸ For an introduction to censorship and print law in the Low Countries during the sixteenth and seventeenth centuries, see Ingrid Weekhout, *Boekensensuur in de Noordelijke Nederlanden. De vrijheid van de drukpers in de zeventiende eeuw*, Den Haag 1998, pp. 23-42.

¹⁹ There are several theories about the role of Remacle Roberti, but he probably played under one hat with his brother Jean when he asked Van Helmont to write down his ideas against Remacle. See also Mark A. Waddell, 'The Perversion of Nature: Johannes Baptista Van Helmont, the Society of Jesus, and the Magnetic Cure of Wounds', *Canadian Journal of History* XXXVIII (2003), pp. 179-97.

²⁰ The phrase 'hovii typographi', refers to a printer-publisher Hovius, belonging to a family of printers who worked for many generations in the printing business in Liège. Van Helmont's later work *Supplementum de Spadanis fontibus* was published in Liège in 1624, although by another printer and with the approval of a church official different from the Stenartius mentioned in this letter.

As is evident from what I just explained and also from the following words written at the end of the book: ‘I am yours, i.e. Roman Catholic, whose mind has pondered on nothing that would be contrary to God, or the Church.’

Eventually the book was published in Paris in 1621. Without my knowledge, without any expenditure of mine, I received twenty copies, which I have sent and given away as I thought was appropriate, without knowing where I could find more copies. And these twenty copies were sent to me under my name, but without any letter. I then sent a copy to the aforementioned Mr Roberti the Jesuit, who subsequently wrote an apology full of slander and bitterness, against which I have never defended myself in words or writing, although Mr Wintershoven and other Jesuits came to harass me about it.²¹

While Van Helmont’s treatise on the weapon salve was being written, discussed and published, Francis Mercury was only three to seven years old. And yet this publication would have a major effect on his life. The year when *De magnetica vulnerum curatione* came out (1621), Jean Roberti published a reply against Van Helmont, in which he accused the latter of heretical ideas in the way he had tried to solve the question about the presumed natural/diabolical qualities of the weapon salve.²² Roberti dedicated his work to the Archbishop of Mechelen, Jacobus Boonen (to whose diocese Van Helmont belonged) and divided his work into twelve parts, corresponding to as many examples of ‘inconsiderateness’ on Van Helmont’s part (*Incogitantia Helmontii I-XII*). Roberti also added a list of condemnations of Paracelsian ideas in Van Helmont’s text, and found the support of six medical professors of the medical faculties of

²¹ Jan Baptista van Helmont to Archbishop Boonen of Mechelen, Mechelen, AAM, Archief officialiteit, inv. nr. 434, part 2, ff. 87^{rv}: ‘Hoogwardighen heere, Remaclus Roberti, wylen general, des vinres, heeft van mij instantelijc begert, ic souden schrijven contra Anatomen D. Johannes Roberti, Jesuite, zijns beminden broeder, ende dat om hem d’orloghen te maeken so hij seijde. Ic heb dan geschreven int iair 1617 een boexken pro magnetica cura vulnerum tegens dopinie vande voorseyde Jesuit, onder den tytel van disputatie, dewelke is hem gesonden, hij met mij daerover gedisputeert, gebeden ic die soude laeten int licht kommen. seer prijsende mijn groot verstant etc. Ic denckende, dattet selve, was so vele als geaprobeert, hebben gegeven aen een Luykenauer, om tot Luyc to doen drucken, alwaer hij vande Vicarius Stenartius, is geaprobeert (so ic eerstdeels can bethoonen) doch heeft naermaels sijn approbatie (doerden voerseijden Jesuit des versoekende) buyte handen hovii typographi, weder getrocken. Ende hoewel ic hem hadde doen gaerne gedruet gehadt, en was nochtans mijn meijninge anders niet, dan wesende geaprobeert, ende andersins oyc niet. Blijckende tselve bij het voergaende als oyc dat opt leste des boecs, stelle dese woerden. Tuus sum, id est Catholicus romanus, cui nihil quod Deo, quod Ecclesie contrarium sit, pensitare fuit animus. Een lesten is den boeck gedruet tot Parijs int iair 1621. Sonder mijens wete, sonder mijens cost, ende mij sijn omegesonds 20 exemplaren, diewelken ic heb gesonden ende gegeven so ic by note heb bevonden, sonder ic weten wair ic eenich exemplair meer mochten vinden, ende sijn mij dese 20 exemplaren gesonden met een opschrift, sonder eenigen brief daerbij wesende. Strax heb ic een exemplair gesonden aen voorseiden, heer Roberti Jesuit, die welke strax oyc heeft een apologie geschreven vol van caluminis ende bitterheyt waertegens ic noyt en heb yet geseyt noch geschreven, hoewel heer Wintershoven ende andere Jesuiten mij hebben daerover kommen terghen.’

²² Jean Roberti, *Curationis magnetica et unguenti armarii magica impostura clare demonstrata*, Luxembourg 1621.

Douai and Leuven, who added their names to the publication.²³ This started the long-lasting trial and investigation initiated by the Archiepiscopal office of Mechelen, against Van Helmont's theological lapses as intimated by Jean Roberti. With the exception of *Supplementum de Spadanis fontibus*, printed in Liège in 1624, Van Helmont did not manage to publish anything else until 1642, given the intense scrutiny to which his ideas and writings were subjected by the ecclesiastical inquisitors.²⁴ The letter quoted above was part of his defence. Aside from the official reports of the interrogations, which were written in Latin by scribes of the Archiepiscopal office, this document represents the only account we have in Van Helmont's own hand and in Dutch.

Fiercely critical of the common educational system, Van Helmont taught all his children at home, and it is likely that Francis Mercury, as the youngest child in the household, joined his elder brothers at an early age.²⁵ Francis Mercury reports about this in his introduction to the *Ortus medicinae*, in a section where he quotes the opinions of others about himself:

His father is to blame, for he obviously educated all his children in the wrong way and exposed them to alchemy (*pyrotechnia*) from a very young age. Now he has become peevish and has wasted the opportunity of being happy. When the Spanish Infanta Isabella Clara Eugenia received him, and had destined him for a noble service to her nephew the prince-cardinal, he refused. It would have been better if he had died instead of his brothers, for good things could have been expected from them, while he was good for nothing. If he wishes to study, he should submit himself to professors, as is common with other people: or he should be forced to take a wife, so that she might dispel all these strange ideas from him.²⁶

Francis Mercury is not only using imaginary outsiders (*sapientes*, or wise men) to blame his father for his own bad education, he is also blaming himself for his unhappiness, by not taking on a

²³ The professors who signed in support of the condemnation were Thomas Fienus, Gérard de Vilers (both from Leuven), Martin Remy, Louis du Gardin, Philippe Becquet (all three from Douai), and Éric Southeim (from Luxembourg).

²⁴ Jan Baptista van Helmont, *Supplementum de Spadanis fontibus*, Liège 1624. It is interesting to see that this work has a dedicatory letter to the archbishop of Cologne (also the bishop of Liège), who most probably gave him the *imprimatur* for the book. At this point, Van Helmont clearly needed to look outside his diocese to get his work published. The book was examined and signed off for not containing any heretical ideas by Johannes A. Chokier (a vicar), on the 24th of February 1624.

²⁵ Van Helmont rages on about the educational system at universities throughout the *Ortus medicinae*, but for a first introduction to his thought, see: 'Studia authoris', in J. B. van Helmont, *Ortus medicinae*, pp. 15-19.

²⁶ Francis Mercury van Helmont, 'Vita authoris', in J. B. van Helmont, *Ortus medicinae*, sig. C^r: 'Parens ejus in culpa est, omnes quippe liberos suos perperam educavit, a teneris ipsos pyrotechniae adhibebat, hic nunc morosus effectus, felicitatis ansam perdidit, cum Hispaniarum Infans Isabella Clara Eugenia eum susciperet, ac nobili servitio penes Nepotem suum Principem Cardinalem destinaret, restitit: praestaret fratrum loco ipsum decessisse, ab illis boni quid expectari potuisset, hic nulli usui inservit: si studiis inhiat, Doctoribus se submittat, ut reliquis mos est: vel uxorem ducat adigendus, quae peregrina haec ipsi excutiat.' The 'Princeps Cardinalis', mentioned in the Latin text was Isabella's nephew, the Cardinal-Infante Ferdinand (1609/10-1641).

position at the Spanish court and by comparing himself negatively to his two brothers who died in the plague in Brussels and whose death left him behind as the only son. That Francis Mercury was not entirely satisfied with his own education, and that the education he had received was highly uncommon, is clear from the following passage:

I, Mercury, was brought up by my father from a young age in the esoteric Hermetic School and in a way initiated in it. However, my restless spirit was not satisfied by this, for I was eager to get full knowledge of the universal sacred art, or tree of life, and to enjoy it, and I did not want to begin the work with my hands unless I had full knowledge of it.²⁷

On top of that, Jan Baptista apparently did not teach his children Latin, since Francis Mercury had to teach himself Latin at a later age:

While descending²⁸, I ascended to essential and hidden properties, and for my own advantage, I seemed to have been taken by a strong desire to understand certain Latin books. To this end, I read through the New Testament in Latin and German simultaneously several times, so that in that way I would not only understand the Latin style in a few days, but I might also discover in the Testament the perfect, long-yearned, simple and eternal truth, and only life, which the One (i.e. God) does only require, and is contrary to all duality and plurality. And God created everything in this way, within and through this One: otherwise He would not have preserved the order.²⁹

We do not have much information about the remainder of Francis Mercury's youth. Even in his *Memoirs*, surviving only as a manuscript in the British Library, he does not speak about the first thirty years of his life, but only of the years after the death of his father, when he started travelling around Europe.³⁰ A few more parts of the puzzle can nevertheless be added to the attempt to reconstruct the events of his earlier years.

²⁷ Francis Mercury van Helmont, 'Vita authoris', in J. B. van Helmont, *Ortus medicinae*, sig. [D2]r: 'Ego Mercurius, a teneris in segregata Schola Hermetica a Genitore meo enutritus, ibidemque aliquo modo imbutus, eo spiritus meus inquietus non erat contentus, voto expetens universam Artem sacram, vel Arborem vitae pernoscere, eaque frui: nec manus operi admovere volebam, nisi hanc a capite ad calcem in certo callerem.'

²⁸ Francis Mercury is here referring to the simple, humble life to which he is aspiring by following the example of the wise men he is mentioning in this introduction.

²⁹ Francis Mercury van Helmont, 'Vita authoris', in J. B. van Helmont, *Ortus medicinae*, sig. [B4]v: 'Descendens ascendebam ad proprietates essentielles et occultas, meoque auxilio librorum quorundam Latinorum intellectus desiderari videbatur. Huic fini Testamentum Novum idiomate Latino simul ac Germano aliquoties perlegebam, ut eo pacto diebus paucis stylum Latinum non modo intelligerem, verum etiam praefato in Testamento comperirem perfectam, diuque optatam, simplicem ac aeternam veritatem, vitamque Unicam, quod Unum (scilicet Deus) Unum tantum flagitat, et omni Dualitati vel Pluralitati adversatur: sic quoque quicquid creavit Deus, omne in eo Uno, et per illud Unum creavit, alioqui non servasset ordinem.'

³⁰ London, BL, Sloane MS 530, ff. 46-57.

By the time he reached the age of ten, in 1624, his father had published his second work, on the origin of Spa waters, which was once more a response to another work, the *Spadacrene, hoc est Fons Spadannus* ('Spa Fountain') by Henri de Heer (c. 1570-c. 1636), another Flemish physician, who in his turn would continue to blacken Van Helmont's reputation.³¹ According to Francis Mercury's account of this period, the publication 'showed clearly that these writings of his [i.e. his father's] did not fear the censorial rod', in other words, Jan Baptista was not afraid to say what he had to say even though this might not align with the Church dogma's.³² However, this came with a price. The next ten years the lives of Van Helmont's family would be marked by the inquisitorial interrogations of Jan Baptista, caused by the publication of *De magnetica vulnerum curatione*. He had to appear several times before the episcopal court in 1627, 1630 and 1634. After the first interrogations Jan Baptista's book and his responses were submitted to censure as argued by the professors of the University of Leuven.³³ It took the censors three years to produce their verdict, and as expected, they condemned the book as heretical and tainted with diabolical magic. This triggered a second wave of interrogations of Van Helmont and his answers were once again submitted to the theologians and physicians of the University of Leuven to ask for their opinion.³⁴ The third and last series of interrogations were caused by the spread of the condemnations of Van Helmont's work, which ironically indicated that his ideas were wider known than ever before. This time the judge decided to search Van Helmont's house for more copies of the condemned book and to arrest its author.³⁵ Francis Mercury, now twenty years old, saw his father put into prison for two days, followed by an imprisonment at the Franciscan convent in Brussels for another two weeks. After the payment of a fine of 6000 florins and many letters from Jan Baptista and his parents-in-law to the offices of the episcopal court, Van Helmont was allowed to spend the rest of his sentence under house arrest, which would take another twenty-eight months.³⁶ It was during this period that Francis Mercury's elder brothers died during an outbreak of the plague in Brussels, as recalled by Jan Baptista in a letter to the Bishop of Mechelen from the 10th of December 1638, and by Francis Mercury in his introduction to the *Ortus medicinae*.³⁷

Francis Mercury's maternal grandmother, Isabella van Halmale, put much effort in trying to convince the episcopal court of her son-in-law's innocence, and eventually managed to have the

³¹ Henri de Heer, *Spadacrene, hoc est Fons Spadannus*, Liège 1614.

³² Francis Mercury van Helmont, 'Vita authoris', in J. B. van Helmont, *Ortus medicinae*, sig. [C4]v: 'Et ecce, in detentione hoc desuper perpessa alterum prodromi loco libellum superaddidit, subsequendumque alium praecipuum, ut liquido constet, ejusmodi scripta censoriam virgam minus reformidare.'

³³ Corneille Broeckx, 'Interrogatoires du Docteur J.B. van Helmont sur le magnétisme animal', *Annales de l'Académie Archéologique Belgique*, XIII (1856), p. 321.

³⁴ Ibid., p. 328; Craig Harline, *Miracles at the Jesus Oak*, New York 2003, p. 216.

³⁵ For a list of the papers confiscated during the house search, see Corneille Broeckx, 'Notice sur le manuscrit *Causa J. B. Helmontii*, déposé aux Archives Archiépiscolales de Malines', *Annales de l'Académie Archéologique Belgique*, IX (1852), p. 288.

³⁶ Ibid., pp. 328-35; Harline, *Miracles at the Jesus Oak*, pp 221-2.

³⁷ See Introduction, p. 21; and the quotation above, see fn. 26.

house arrest revoked. Nevertheless, the final verdict of the trial, which would absolve Van Helmont from being a heretic, did not come until two years after his death in 1646.³⁸

Despite the charge of heresy marking Jan Baptista's name, he was allowed, in 1642, to publish *Februm doctrina inaudita* ('A new doctrine about fevers'), with the ecclesiastical *imprimatur* from Peter Coens, canon and *ensor librorum* of Antwerp.³⁹ The treatise was reprinted as the second of four treatises published in 1644 with the title *Opuscula medica inaudita* ('New medical tracts'), printed in Cologne, again with an *imprimatur* by Coens.⁴⁰

In the introduction to the treatise on fevers, Jan Baptista tells his readers about the book he wrote on new approaches in medicine during the years of the interrogations. He calls the book *Ortus medicinae*, which can only refer to the book with the same title that Francis Mercury published posthumously:

All of a sudden, I recognised that God's hand had touched me. Therefore, in the full storm of the persecutions, I wrote a book, whose title is *The rise of medicine, that is, the unheard beginnings of natural science*, in which I have revealed the common errors of the Schools in healing. I have, I say, provided and demonstrated new principles of diseases as well as theories that have never been heard of before, so that universities, having put aside the nonsense of the Gentiles, could become accustomed to the truth.⁴¹

Francis Mercury, too, comments on the publication of the *Opuscula medica inaudita*, in his introduction to the *Ortus medicinae*, which gives an interesting insight in the reception of his father's works.

I saw there innumerable men of all kinds of nations, learned and unlearned, wise, noble and ignoble, young and old, who were all against each other divided by a dispute about the knowledge and science of truth. Looking at the bottom of this division, I wished to contribute towards mutual agreement. I first noticed, that a small volume, part of another to follow later, entitled *Opuscula medica inaudita* ('New medical tracts'), had in part caused this quarrel, which had recalled the younger, pious, studious and other worshipers of the truth from the long and dark night into the break of day, so that they might believe that there still was a light more perfect and hitherto unknown, from

³⁸ Harline, *Miracles at the Jesus Oak*, pp. 227-37.

³⁹ Jan Baptista van Helmont, *Februm doctrina inaudita*, Antwerp 1642; A. J. J. Van de Velde, 'Helmontiana II', *Verslagen en Mededelingen van de Koninklijke Vlaamse Academie voor Taal en Letterkunde* (1929), p. 724.

⁴⁰ Jan Baptista van Helmont, *Opuscula medica inaudita*. I. *De lithiasi*; II. *De febribus*; III. *De humoribus Galeni*; IV. *De peste*, Cologne 1644; Van de Velde, 'Helmontiana II', p. 726.

⁴¹ Jan Baptista van Helmont, 'Philatro lectori', in *Opuscula medicina inaudita*, Cologne 1644, p. 6: 'Cognovi statim, quod manus Domini, tetigisset me. Ideoque in plena persecutionum tempestate, volumen conscripsi; cuius titulus, *Ortus medicinae*. *Id est, initia Physica inaudita*. In quo detexi errores Scholarum, medendo solitos. Nova, inquam, morborum principia, ut et hactenus inaudita theoremata dedi, ac demonstravi; ut relictis Gentilium vanitatibus, Academiae deinceps assuescant Veritati.'

where this dawn shone upon them, and the more they looked into this little book, the more delighted they were of it, because in there they found the promised arrival of the more perfect Light they were longing for.⁴²

Francis Mercury describes the situation as some sort of dream or vision; nevertheless he is referring to the publication of the *Opuscula medica inaudita*. And when he says that ‘a small volume, part of another, is to follow later’ he refers to the *Opuscula* which will become part of the *Ortus medicinae* as its second volume. From the same introduction it becomes clear that those opposed to his father’s ideas were keen on prohibiting the printing of more of Jan Baptista’s writing, as Francis Mercury let them speak:

Firstly, we will soon implore the magistrate to condemn that quarrelsome little book to the flames, under a further prohibition, that those who read it should be subject to pecuniary and corporal punishments. Secondly, we should try our best to fool the only son of the author of the book in question, who is in possession of the remaining writings by hereditary right, and to promise him a certain amount of money, by the intervention of a third person, under the pretence of compensation for his father’s books, so that through this we could learn at least, where he keeps these hidden books. In this way we would get hold of them, to be burnt.⁴³

The publication of the *Ortus medicinae* has led us to the posthumous work of Jan Baptista, and the life of Francis Mercury after the death of his father on the 30th of December 1644. From this moment onwards, we can rely on more information about Francis Mercury, as we shall see in the following sections of this chapter.

⁴² Francis Mercury van Helmont, ‘Vita authoris, in J. B. van Helmont, *Ortus medicinae*, sig. C2r: ‘[I]nnumeros ibidem cernebam homines omnigenum gentium doctos et indoctos Sapientes, nobiles ignobilesque, juvenes cum senibus, qui omnes ad certamen invicem divisi erant, propter cognitionem, scientiamque veritatis. Ego, hujus Divisionis fundum perspicens, voto tentabam me parare insertioni mutuae Concordiae. Advertēbam primo, libellum quendam, partem alius subsequenti, insignitum, *Opuscula Medica inaudita*, dissidium hoc ex parte cōvisse, qui juniores pios Studiosos, aliosque veritatis cultores ex proluxa caliginosaque nocte in diluculum revocarat, ut crederent magis perfectam nec doctam hactenus lucem restare, unde illis diluculum hoc coruscaret, et quo penitus praefatum libellum inspiciebant, eo magis laetabantur, quod in eo reperirent pollicita adventus desideratae Lucis perfectionis.’

⁴³ Francis Mercury van Helmont, ‘Vita authoris’, in J. B. van Helmont, *Ortus medicinae*, sig. C2v-C3r: ‘Magistratum mox implorabimus, libellum illum seditiosum igni condemnare, ulteriori sub interdicto, ut qui uterentur eo, facultatum corporisque supplicium luant. Secundo satagendum foret, ut statim astu imponentes unico authoris filio praedicti libelli, qui reliqua scripta haereditario jure possidet, certam pecuniae summam polliceremur, intercedente aliquo tertio, in redhostimentum patris sui stare fingentes, ut hoc pacto ad minimum rescisceremus, ubinam illos occultos asservaret, quo potiremur iisdem, igne exurendis.’

Towards the first edition: Amsterdam

Francis Mercury ended his introduction to the first edition of the *Ortus medicinae* hinting at the way in which his father's works had been received thus far. The text culminates in an imaginary dialogue between 'Mercurius' (obviously a reference to the author of the introduction) and a gathering of sages (*sapientes*). In the dialogue, Francis Mercury explains who he is, what his religious beliefs are and, eventually, how he has come to the publication of the *Ortus medicinae*. At the very end of the introduction, he calls once more upon all wise men, explaining that he knew all of them already, even if they had disguised themselves so far, and is hoping that they will accept his work. The sages (Francis Mercury was probably referring to contemporary scholars) had in fact already accepted the work, and had started to respond to him with letters about and appraisals of his father. Through their efforts, more and more of their names became known to the public. However, Francis Mercury stated that he had lost all these letters, for his castle had been recently plundered (*spoliasset*) by the Count of Gilinius (*Gilini Comite*).⁴⁴ In the absence of Francis Mercury, the count took all books, letters and other written materials belonging to Jan Baptista. The son was nevertheless able to deliver his father's papers to the printers as requested by him before dying.⁴⁵ Most probably, the castle mentioned in the introduction is his mother's estate in Vilvorde, where the family would have kept Jan Baptista's papers. The loss of these papers was also noticed in England, where, in 1651, Samuel Hartlib (c. 1600-1662) wrote: 'By some bodies instigation Gleen was made to fall upon some of Helmonts houses which he plundered and set on fire, wherein many excellent writings of his perished. Amongst others a great Volume of letters written by himself and by others to him about many arcana.'⁴⁶ The letters referred to by Francis Mercury and Hartlib are a sad loss, since we only

⁴⁴ The 'Count of Gilinius' refers to Count Godfried (Godard) Huyn van Amstenrade (1590-1657), infamous as a soldier in the German service during the Thirty Years War. The Counts of Geleen were a noble family. See Th. A. M. Beckers, *Het ridderslacht Huyn van Amstenrade en Geleen*, Amstenrade 1998, pp. 49 and 72.

⁴⁵ Francis Mercury van Helmont, 'Vita authoris', in J. B. van Helmont, *Ortus medicinae*, sig. [E4]v: 'Adhaec, erga Dominos et Magistros hos Sapientes tuis gratiis defunctis, illorum sectatoribus inquiebas: Veritatis amatores, summe honorati, cum minus honoratis, nobiles ignobiles, quique adestis, neminem vestrum seorsim novi (quamvis a vobis instimulatus fuerim) quia vultu jam mihi velato estis: Scitote, demisse me vobis omnibus supplicare notis, ignotisque, promptam meam opellam, benevolumque affectum haud gravate suscipere, omnibus ac singulis vobis ex cunctis viribus inservire se devoventem. Quibus auditis, acceptum sibi eminus testabantur, ac notorum numerus ingens vela levare incipiebat, quidam literas tibi exaratas legebant, alii personabant Hymnis in honorem parentis tui, ejusque scriptorum, tibi missis, quo paterno praefigerentur operi: Cessante hoc applausu, post gratias tuas absolutissime peractas, persequeris: Multos vestrum novi, aliquos visu et alloquio, caeteros celebritate magna, literis, et carminibus, a Gilinii Comite mihi ereptis, cum absente me spoliasset castrum, ubi inter reliquam meam supellectilem libros, scripta, et hymnos praedictos deprehenderet, quae omnia ille cum Medicastro suo Galenico superstites non sufferre poterant: hunc lugeo interitum, causam unicam, quod nullatenus lucem cernere potuerint. Quo precabare illis omnia prospera ac salutaria in Domino, inquires: Vestrae flagitationi commemorata cuncta typis mandabo.'

⁴⁶ Samuel Hartlib, *Ephemerides* 1651, in Hartlib Papers [hereafter HP] 28/2/24B. See also Antonio Clericuzio, 'From van Helmont to Boyle: a Study of the Transmission of Helmontian Chemical and Medical Theories in Seventeenth-century England', *The British Journal of the History of Science* XXVI (1993), p. 311.

have a few letters left of Van Helmont's correspondence. Some of them are kept in the trial papers as mentioned above, others can be found in the collection of letters by Marin Mersenne (1588-1648) and Pierre Gassendi (1592-1655), two prominent French philosophers.⁴⁷

At the time, Hartlib was at the centre of important intellectual networks. In the summer of 1645, half a year after Jan Baptista's death, Sir Cheney Culpeper (1601-1663) wrote to Hartlib inquiring about the rumour that Francis Mercury was in charge of printing his father's works:

And truly I cannot but conceiue it probable that Monsieur Helmonts sonne might (as acquaintance growes) be dealte with all for some of these secrettes, & yf they were demanded at firste for those ordinary endes for which his Father proposes them he wOULD perhaps be the lesse shy; I am very confidente his Father hathe lefte him suche excellent things, whereof neyther himselfe nor his sonne knowes yet the hygheste vse; & the like saythe Helmont of Paracelsus himselfe.⁴⁸

Heinrich Appelius (fl. 1640-1658), one of Hartlib's correspondents, writing from the small town of Purmerend, just north of Amsterdam, in 1647, reported that he has acquired more information about Van Helmont's works:

Recently, I have answered his letter briefly, and included it to H[ans] Fabel. When I was in Amsterdam afterwards, Elzevier also gave me some copies of Helmont's writings, brought to him by Baptista Mercurius Helmont himself with whom he had reached an agreement. Of these, I brought one to H. Rulcius's [Johannes Rülz?] house, who was absent at the time, for him to send it to H[ans], I do not doubt he took care of it, just to be sure I enclose my remaining copy here.

As Elzevier's printing presses are fully occupied, he has given it to H. Fabel to print, with whom an old medical doctor named N. Adamus, exiled from Helmstedt for religious reasons, is staying for free, and he will help and take care of the revision in return. So I think that several sheets are finished already, it will become more or less four Alphabets [four sets of twenty-three quarto signatures (1472 pages)] in quarto,

⁴⁷ From the correspondence between Van Helmont and Mersenne, between 1630 and 1631, we have 11 letters, published in Cornelis de Waard and Paul Tannery (eds), *Correspondance du P. Marin Mersenne*, 17 vols, Paris 1932-88. Van Helmont's letters are published in vols II and III. There is one extant letter from Gassendi to Van Helmont, dating 1629, published in Pierre Gassendi, *Opera omnia*, 6 vols, Lyon 1658, VI, pp. 19-24). The loss of the letters and papers and the status of the printing process of the works that survived are discussed in the correspondence between members of the so-called 'Hartlib circle'. These epistolary exchanges have been discussed by Clericuzio, 'From van Helmont to Boyle', *The British Journal of the History of Science* XXVI (1993), pp. 303-334; and Charles Webster, *The Great Instauration*, pp. 276-7. On Hartlib and his circle, see Mark Greengrass, Michael Leslie, and Timothy Raylor (eds), *Samuel Hartlib and Universal Reformation: Studies in Intellectual Communication*. Cambridge 1994.

⁴⁸ Sir Cheney Culpeper to Samuel Hartlib, 17 July 1645, Sheffield University Library, HP 13/94A-98B. Transcription by the Hartlib Papers Project, consulted via Early Modern Letters Online (EMLO): <http://tinyurl.com/7z9pcl6> (<http://emlo.bodleian.ox.ac.uk>, 23 May 2013).

printed with the same font as the previous four treatises were published, which are included again.⁴⁹

Francis Mercury (wrongly named Baptista Mercurius in the letter above) had in the meantime left his parental house in Brussels, and was calling himself an *eremita peregrinans*, ‘a wandering hermit’.⁵⁰ He divested himself of all belongings and gave his inheritance to one of his younger sisters, before embarking on a mission to publish his father’s works.⁵¹ We do not know very much about his life during these years, but some tentative answers to a few questions can be provided. Why did he decide to go to the Northern Netherlands instead of contacting one of the printers in the Spanish Netherlands? And how did he end up with Elsevier as the publisher?

The choice to go to the Northern Netherlands and specifically to turn to Lowijs III Elsevier in Amsterdam was not particularly unusual, if we consider the publishing history of Jan Baptista’s works during the latter’s life. He was not allowed to publish in the Spanish Netherlands until 1642, when his treatise on fevers finally came out in Antwerp, with the *imprimatur* of Peter Coens.

In the Northern Provinces, censorship was administered by the States General. Although the Church was not involved, it remained an authoritative institution, in which the ‘bills of censorship’ were written by the government of the actual Provinces. The Netherlands had the least restrictive printing policy in Europe, and censorship was mainly concerned with political writings and the spread of political pamphlets.⁵²

In 1644, Van Helmont’s *Opuscula medica inaudita* were eventually published by Jost (Jodocus) Kalckhoven (c. 1620-1669/1670), who also reproduced Coens’s *imprimatur*. To understand the importance of these names and places, a distinction has to be made between the different phases in a book’s printing process. As argued extensively by Elizabeth Eisenstein in her book on the printing revolution, and subsequently by Robert Darnton, Adrian Johns, and recently by Djoeke van Netten, the stages in the process of printing, publishing and selling books are

⁴⁹ Henry Appelius to Hartlib, 2 May 1647, SUL, HP 45/1/29A. Transcription by the HPP, consulted via EMLO: <http://tinyurl.com/7egpd45> (<http://emlo.bodleian.ox.ac.uk>, 23 May 2013): ‘Newlicher zeit hab ich sein schreiben mit kurzem beantwortet, vnd H Fabeln einzuschliessen gegeben, auch als ich seiter zu Amsterdam war, langte mir Elzevir ein par copyen Scriptorum Helmontij die ihm Baptista Mercurius Helmont selbstem gebracht vnd alles mit ihm abgeredt hat, darvon ich einer an H Rulicij, tunc absentis haus brachte an den H zu vbersenden, zweiffle nicht es sey geschehen, zum vberfluss füge ich mein vberbliebenes auch hierbey/ Weil Elzvir seine Pressen voll wercks hat, hat ers H Fabeln zu trucken vnter honden gegeben, bey dem ein alter von Helmstatt <ob religionem> vertriebener Doctor Medicinæ N. Adamus anjetzo gratis [losieret?], der dann siquod recurrit, helffen, vnd die revision versehen soll; so dass ich meine es seyen albereit schon etliche bogen fertig, Es sollen vngefehr 4 Alphabeta werden, in 4to mit dem Character getruckt darinnen die vorige 4 tractaten, die dann auch wieder werden darbey kommen, ausgangen.’ Many thanks to Leigh Penman who pointed me towards this letter.

⁵⁰ Francis Mercury van Helmont, ‘Vita Authoris’, in J. B. van Helmont, *Ortus medicinae*, sig. B3^v.

⁵¹ *Ibid.*, sig. C^r.

⁵² Ingrid Weekhout, *Boekencensuur in de Noordelijke Nederlanden: De Vrijheid van Drukkers in de Zeventiende Eeuw*. Den Haag 1998, pp. 48-53.

necessary to understand how knowledge was transferred.⁵³ In the case of Van Helmont's work it is worthwhile looking at the working methods of the printing house of Elsevier. Lowijs III Elsevier (1604-1670) had started the Amsterdam branch of the family business in 1638 and ran the business on his own until his cousin Daniel joined him in 1655.⁵⁴ The publishing house regularly subcontracted other printers to work for them. This was necessary in the beginning, because the Amsterdam branch did not have a sufficient amount of printing presses yet (although Lowijs was allowed to use the Leiden presses of his uncle as well), and even during later stages it could happen that all presses were occupied. Two printers Lowijs subcontracted more than once were Jost Kalckhoven and Hans Fabel.⁵⁵ The former had printed the 1644 *Opuscula medica inaudita* and probably provided Francis Mercury with the contact of Elsevier in Amsterdam when he decided to print *Ortus medicinae*. Subcontracting was common practice, and makes us wonder whether Kalckhoven published Van Helmont's *Opuscula medica inaudita* under the auspices of Lowijs III Elsevier in Amsterdam. It would certainly explain why Kalckhoven simply reproduced the *imprimatur* of the 1642 edition, as the publication would have fallen under Dutch jurisdiction. The German option would have required the permission from the episcopal office of Cologne.

Hans Fabel worked in Amsterdam; several scholars have suggested that his name was a pseudonym, but Leigh Penman has recently shown that Fabel was in fact an actual person.⁵⁶ Penman has used the Hartlib Papers as an important source to prove the existence of Fabel, who was heavily involved in the printing of the first edition of Van Helmont's *Ortus medicinae*. For example, in August 1647, Appellius wrote again to Hartlib, reporting that 'Helmont' was 'almost half printed' and that 'as soone as hee is ready Fabel will send you a cobby, They make reaking [they can count on it, SF] against Easter messe'.⁵⁷ Hartlib also mentioned Fabel's father 'who lives with him [in Amsterdam] hath many Experiments and secrets', connecting the alchemical practice and experimentation to the works by Böhme which Fabel printed in his years in Amsterdam.⁵⁸

⁵³ Elizabeth L. Eisenstein, *The Printing Revolution in Early Modern Europe*, 2nd ed. Cambridge 2012; Robert Darnton, 'What Is the History of Books?', *Daedalus* CXI (1982), pp. 65–83; Adrian Johns, *The Nature of the Book: Print and Knowledge in the Making*. Chicago 1998; Djoeke van Netten, *Koopman in kennis: De uitgever Willem Jansz Blaeu in de geleerde wereld van zijn tijd (1571-1638)*, Zutphen 2014.

⁵⁴ David William Davies, *The World of the Elseviers, 1580-1712*, The Hague 1954, pp. 97-121.

⁵⁵ *Catalogue d'une collection unique de volumes imprimés par Les Elsevier et divers typographes hollandais du XVII^e siècle*, ed. by Édouard Rahir, Paris 1896, p. 111: 'nr. 1008. J. B. Van Helmont. Opuscula medica inaudita. [M.22] Colon. Agrippinae, apud Jodocum Kalcoven, 1644.'

⁵⁶ Leigh Penman, 'A Heterodox Publishing Enterprise of the 'Thirty Years' War: The Amsterdam Office of Hans Fabel (1616–after 1650)', *The Library* XV (2014), pp. 3–44.

⁵⁷ Henry Appellius to Hartlib, 26 August 1647, SUL, HP 45/1/33A-34B. Transcription by the HPP, consulted via EMLO: <http://tinyurl.com/6qhyfe5>. (<http://emlo.bodleian.ox.ac.uk>, 27 May 2013).

⁵⁸ Samuel Hartlib, *Ephemerides*, January-February 1650, SUL, HP 28/1/43A; Willem Frijhoff and Marijke Spies, *1650: Bevochten Eendracht*, The Hague 1999, p. 276.

To recapitulate, we can assume that in 1645 a number of scholars were informed about Francis Mercury's possession of his father's works and that by May 1647 part of the text had already been printed. This indicates that the text had arrived in Amsterdam by the end of 1646. Francis Mercury had used the pre-existing contacts with Elzevier, via Calchoven, to ensure that his father's texts would be printed by one of the most successful and well-connected publishers of the time.

In the meantime in England: Walter Charleton and the first translations in English

As we have seen, soon after Jan Baptista's death, Hartlib and his correspondents were eagerly waiting for the publication of his works. Hartlib's correspondents were based all over the continent and England, which shows how Van Helmont's fame had already spread through Europe. There were several connections – sometimes fairly close ones – between Hartlib's correspondents and the Helmont family, mainly Francis Mercury and his mother. Even without these connections, however, Van Helmont's works found their way into English medical circles. The first Helmontian translations were provided by Walter Charleton (1620-1707).

Charleton was the son of a vicar of Ilminster, and was educated in Oxford at Magdalen Hall, where he studied under John Wilkins (1614-1672). He obtained his medical degree in 1643. At this point, Charles I was residing in Oxford, and Charleton immediately became the King's physician-in-ordinary.⁵⁹ Although this function was a merely honorary position, it did bring him in close contact with other physicians to the King, such as William Harvey (1578-1657), and Theodore Turquet de Mayerne (1573-1655). It has been suggested by Lindsay Sharp that Charleton worked as Mayerne's assistant or apprentice in the late 1640s, when Charleton obtained the practical experience he needed to start his own medical practice.⁶⁰ He established his own practice in London in 1650, after he was admitted as a Candidate to the Royal College of Physicians (to become an Ordinary Fellow only in 1676).⁶¹

John Wilkins, Charleton's tutor at Oxford, was one of the principal characters of the so-called 'Oxford group', a company of mainly Oxford-based scholars-philosophers, who promoted experimental philosophy. This group was the continuation of a body of similarly minded scholars who used to come together in London during the 1640s. Wilkins had been part of that first group as well, as had Theodore Haak (1605-1690), a German natural philosopher who

⁵⁹ John Henry, 'Charleton, Walter (1620–1707)', in *ODNB* ([<http://0-www.oxforddnb.com.catalogue.ulrls.lon.ac.uk/view/article/5157>, accessed 11 Aug 2013].

⁶⁰ Lindsay Sharp, 'Walter Charleton's Early Life 1620–1659, and Relationship to Natural Philosophy in Mid-Seventeenth Century England', *Annals of Science* XXX (1973), pp. 311–40.

⁶¹ 'Walter Charleton', in William Munk, *The Roll of the Royal College of Physicians*, 6 vols, London 1851, I, p. 390. [Available online via munksroll.rcplondon.ac.uk]

settled in London in 1639 and was a close friend of Hartlib. Also John Evelyn (1620-1706), the diarist and a lifelong friend of Charleton's, was part of the Oxford group. Many of the founding members of the Royal Society, established in 1660, came from these two groups. Both Haak and Evelyn had an interest in chemical medicine and alchemy, which would have made them familiar with the works of Van Helmont. William Brouncker (1620-1684), who would become the first president of the Royal Society, was also part of the 'Oxford group', and studied medicine in Oxford at the same time as Charleton.

Walter Charleton published two works containing translations from Van Helmont's treatises: *A Ternary of Paradoxes: The Magnetick Cure of Wounds; The Nativity of Tartar in Wine; Image of God in Man* and *Deliramenta Catarrhi: or, The Incongruities, Impossibilities, and Absurdities Couched under the Vulgar Opinion of Defluxions*. Both works were published in 1650 in London by William Lee. Another publication by Charleton appeared in 1650, *Spiritus gorgonicus*, which is a work in Latin on the treatment of the stone (in kidneys, the urinary tract and the gallbladder), strongly influenced by Van Helmont's 1644 *De lithiasi*, one of the four treatises published in the 1644 *Opuscula medica inaudita*. This book was published by Elsevier in Leiden, the cousins of the Lowijs III Elsevier who had published the first edition of the *Ortus medicinae*.

Charleton dedicated the *Ternary of paradoxes* to Brouncker, who was his patron.⁶² Of the three treatises forming the 'paradoxical' *Ternary*, the first one is a translation of *De magnetica vulnerum curatione*, published in 1621, the second is a paraphrased translation of *De lithiasi*, and the third is a translation of the tract *Imago Dei*, published less than two years before in the *Ortus medicinae*. The introduction to this collection of translations ('Prolegomena') is signed by Charleton, on November 2nd, 1649, only a year after the publication of the *Ortus medicinae*. Charleton's second attempt at Helmontian translations, *Deliramenta catarrhi*, is a translation of the corresponding treatise contained in the *Ortus medicinae*.⁶³

Charleton's translations are interesting both because of their timing, so close to the publication of the first edition of the *Ortus medicinae*, and because of their content. Why was this rather traditionally educated physician interested in Van Helmont? To answer this question, we need to take into account a series of intellectual, social and economic reasons. According to his own words, Charleton completed the translations for the *Ternary* in less than two months, following a request by Brouncker.⁶⁴ Although they had been fellow students at Oxford, the social difference

⁶² Walter Charleton, *A Ternary of Paradoxes*, London 1650, sig. A3^r-B3^v.

⁶³ J. B. van Helmont, 'Deliramenta catarrhi?', in *Ortus medicinae*, pp. 410-30.

⁶⁴ Charleton, *A Ternary of Paradoxes*, sig. B^v: 'The inexorable Commands of your Lordship [i.e. Brouncker] and other Person, of so much Honor, as Nobility in Birth, Knowledge, and Fortune can contribute; which led me from the more direct Path of other Contemplations more perpendicular to my Profession, into this wanton digression, and upon the penalty of the deprivation of that, which I have good reason to value much above my life, the place I held in your and their favourable Regard, charged me with the managery of this small Province, for the space of two moneths only.'

between the two was obvious, and we can imagine Charleton embarking on the translation in order to strengthen his ties with Brouncker. There were, however, also intellectual reasons behind Charleton's decision to translate some excerpts from the *Ortus medicinae*. Helmontianism was already known in England at the time and not just within the Hartlibian network, but also among members of the Royal College of Physicians. This conservative institution was openly against the new innovative methods of Paracelsian and Helmontian chemical medicine. A certain number of fellows, however, were keen on applying the new methods and techniques in their practice and writing, even if they refrained from naming Van Helmont in order to avoid controversy.⁶⁵ Theodore Turquet de Mayerne, for example, a Swiss physician and a prominent member of the Royal College of Physicians, was very much in favour of chemical medicine, and would have most certainly introduced Charleton to the writings of Van Helmont, if he had not yet been aware of them. Charleton wrote his translations in the year after his apprenticeship with Turquet de Mayerne and before he settled down in London (1650), so there are reasons to believe that Charleton's interest in Van Helmont was connected to the influence of the Swiss physician. In addition to this, there was the more pragmatic fact that Charleton needed to earn his money, which he presumably received in the form of a salary for his duties towards Brouncker. Finally, we should also take into consideration the political motivations that at the time might have orientated a physician's interest towards chemical knowledge. In the years of the Interregnum, immediately following the beheading of King Charles I - on 30 January 1649 - alchemy, Paracelsianism and Helmontianism became linked to the radical, separatist and anti-royalist sides of the political spectrum.⁶⁶ It seems safe to say that Charleton, who was a fierce royalist, would soon feel a certain embarrassment for his Helmontian leanings and that he would go so far as to publish works presenting arguments against Van Helmont in order to make his royalism more evident. In his translation and commentary of Gassendi's *Animadversiones in decimum librum Diogenes Laertii* (1649), in the chapter devoted to the magnetic cure of wounds, Charleton announced that he had been 'wholly converted' from his 'former Error'.⁶⁷ However, we cannot say that he completely rejected Van Helmont, since there are other places in the book where he agreed with him.⁶⁸

⁶⁵ See Allen G. Debus, *The English Paracelsians*, London 1965, especially pp. 175-83.

⁶⁶ J. Andrew Mendelsohn, 'Alchemy and Politics in England 1649-1665', *Past and Present* CXXXV (1992), pp. 32-4.

⁶⁷ Walter Charleton, *Physiologia Epicuro-Gassendo-Charltoniana, or, A Fabrick of Science Natural, upon the Hypothesis of Atoms*, London 1654, p. 58: 'Which had the Hairbrain'd and Contentious Helmont in the least measure understood; he must have blush't at his own most ridiculous whimsy, that the Rainbow, is a *supernatural Meteor*, or *End extempore created by Divinity*.' Even stronger is however his apology for translating and publishing a translation of *De magnetica vulnerum curatione*. See *Physiologia*, pp. 381-2: 'This Verdict, I preasume, was little expected from me, who have, not many years past, publicly declared my self to be of a Contrary judgment; written profestly in Defence of the cure of wounds, at distance, by the Magnetick, or Sympathetick Magick of the Weapon-Salve; and Powder of Calcined Vitriol; and excogitated such Reasons of my own, to support and explicate the so generally conceded and admired Efficacy of Both, as seemed to afford greater satisfaction to the Curious, in that point, than the

We may conclude this section by saying that the interest in Van Helmont's methods and theories was already present in England, as evidenced by several overlapping networks – Hartlib and his friends, the Royal College of Physicians and the 'Oxford group' - before the publication of the *Ortus medicinae*, even though not all of these networks were so keen on naming the source. The fact that Charleton took on the assignment to translate some treatises for Brouncker can be understood if we bear in mind that the former belonged to a network of scholars interested in alchemy and acquiring experimental knowledge of nature, not to mention his previous involvement as an apprentice of Turquet de Mayerne. Charleton's translations would have a major impact on the spread of Helmontian ideas in England, despite his subsequent rejection of the theories he had helped disseminate. As we will see in the section dealing with the first full English translation of the *Ortus medicinae* by John Chandler (1662), Van Helmont's legacy continued to be important after the Interregnum and influenced new developments in science and medicine in England. Before continuing with our exploration of the English *fortuna* of Jan Baptista van Helmont, we shall follow Francis Mercury in continental Europe to witness how the second, third and fourth editions of the *Ortus medicinae* were being produced and the *Dageraed* published.

Francis Mercury's connections to Otto Tachenius: Venice and the second edition of the *Ortus medicinae*

During his stay in the Northern Netherlands, Francis Mercury did not only succeed in publishing his father's works. He also acquainted himself with the children of the Winter King and Queen, Frederick V, Elector Palatine, and Elizabeth Stuart, the sister of Charles I of

Romantique *Anima Mundi* of the Fraternity of the Rosy-Cross, the Analogical Magnetism of Helmont, or, indeed, than any other whatever formerly invented and alledged. And, therefore, to take off my Reader from all admiration thereat, it is necessary for me here to profess: that the frequent Experiments I have, since that time, made, of the downright Inefficacy and Unsuccessfulness as well of the Armary Unguent, as Sympathetick Powder, even in small, shallow, and in dangerous Wounds; my discovery of the lightness and invalidity of my own and other mens Reasons, adferred to justifie their imputed Virtues, and abstruse wayes of operation; and the greater Probability of their opinion, who charge the Sanation of wounds, in such cases, upon the sole benignity and Consolidative Energy of Nature it self: these Arguments, I say, have now fully convinced me of, and wholly Converted me from that my former Error. And glad I am of this fair opportunity, to let the world know of my Recantation: having ever thought my self strictly obliged, to praefer the interest of Truth, infinitely above that of Opinion, how plausible and splendid soever, and by whomsoever conceived and asserted; to believe, that Constancy to any unjustifiable Conception, after clear Conviction, is the most shameful Pertinacity, a sin against the very Light of Nature, and never to be pardoned in a profest Votary of Candor and Ingenuity; and to endeavour the Eradication of any Unsound and Spurious Tenent, with so much more of readiness and sedulity, by how much more the unhappy influence of my Pen, or Tongue hath, at any time, contributed to the Growth and Authority thereof.; See also Emily Booth, '*A Subtle and Mysterious Machine*': *The Medical World of Walter Charleton (1617-1707)*, Dordrecht 2005, p. 15.

⁶⁸ Charleton, *Physiologia*, for example pp. 309-10.

England. Their children were more or less of the same age as Francis Mercury – that is around 30 in the late 1640s – and still living in exile in The Hague. Through the peace treaty of Westphalia of 1648, the Lower Palatine was restored to the oldest of the living princes, Charles I. Louis (1617-1680). He was in England at the time, and he would stay there until after the beheading of his uncle Charles I, before going to Germany to claim his family's lands in and around Heidelberg. Charles Louis and his brothers Rupert (1619-1682) and Maurice (1620-1652) spent most of the 1640s in England, the two younger brothers as generals in the army fighting on the side of the King during the two Civil Wars, whereas Charles Louis had strong sympathies for the Parliamentarians. This difference in political opinion made the relationship between Charles Louis and Rupert especially tense, which became even worse when they fell in love with the same woman in the middle of the 1650s.⁶⁹ Francis Mercury had the dubious honour to mediate between the two brothers in their quarrel about land, money and the love for Louise von Degenfeld (1634-1677). His efforts, however, met with little success. Charles Louis eventually divorced his wife to marry the lady in question, and Rupert left the Palatine, refusing to return there ever again.⁷⁰

Despite his unsuccessful intervention, Francis Mercury would continue his services as an advisor and would even extend his connections to the family by advising and helping two of the Princesses who were living with their oldest brother in Heidelberg at the time, namely Elizabeth (1618-1680), the later princess-abbess of Herford Abbey, and Sophia (1630-1714), later spouse of Ernest Augustus, the Elector of Hanover, and patron and admirer of Gottfried Leibniz.⁷¹

Let us return to the late 1640s. Francis Mercury is likely to have left the Netherlands, just after the appearance of the first edition of the *Ortus medicinae*, to accompany Charles Louis on his trip to Heidelberg, where he would re-gain and re-institute his Palatine court. Allison Coudert suggests that, in all probability, Francis Mercury accompanied Charles Louis on a trip to Nuremberg in 1649, where the latter, following the Peace of Westphalia, would negotiate with the Emperor and his advisors the terms of restitution concerning the Palatine lands.⁷² It was in this circumstance that Francis Mercury had the opportunity to meet Christian August, the Count Palatine of Sulzbach (1622-1708), who was visiting the Emperor at the same time and who would request Francis Mercury's advice on religious matters soon afterwards.

Between 1649 and 1651, Francis Mercury was not only travelling with the Palatine Prince. In 1650, he was also spending time at the court of the Emperor Ferdinand III (1608-1657) in Prague, where he received a letter from Count Christian August requesting his help in Sulzbach.

⁶⁹ Frank Kitson, *Prince Rupert: Admiral and General-at-Sea*, London 1998, pp. 122-3.

⁷⁰ Coudert, *The Impact of Kabbalah*, pp. 32-33; Adolf Köcher, *Memoiren der Herzogin Sophie nachmals Kurfürstin von Hannover*, Leipzig 1879, pp. 57-8.

⁷¹ Kitson, *Prince Rupert*, p. 119.

⁷² Coudert, *Impact of Kabbalah*, p. 23.

This is all reported in Francis Mercury's *Memoirs* now kept at the British Library. According to some testimonies, Francis Mercury was responsible for the major psychological breakdown that the count suffered after his departure. Several versions of this event are recorded and still extant.⁷³ One of these is by John Finch (1626-1682), an English physician, who studied at the University of Padua at the time. He wrote about Francis Mercury's visit to Sulzbach in one of his many letters to his half-sister Anne Conway (1631-1679).⁷⁴ In an earlier letter, sent two weeks before, Finch had written to his brother-in-law, Lord Conway, describing Francis Mercury's stay in Venice, as a guest of a German prince.⁷⁵ Venice had been one of the other destinations of Francis Mercury in this period, no doubt in connection with the second edition of the *Ortus medicinae*, which was printed in the city in 1651. His stay in Venice is confirmed by several other contemporary letters, such as the one by Otto Tachenius to the agent (*Hofmeister*) of the Duke of Holstein, dated the 19th of January 1652, which was already published at the time. In this long letter concerning the *alkabest*, the universal solvent of many an alchemist, Tachenius reported that Francis Mercury stayed with him in Venice for an entire month.⁷⁶

Otto Tachenius (1610-1680), who would become well known for the index he provided for the second edition of Van Helmont's *Ortus medicinae*, was a German physician who settled in Venice after he completed his medical studies in Padua. He worked as a physician, apothecary and alchemist in his medical practice in Venice.⁷⁷ It is unclear when Francis Mercury and Tachenius met and if this particular visit of Francis Mercury to Venice was his first. In his book *Prekäres Wissen*, Martin Mulsow speculates about the identity of a man portrayed in a painting which Pietro della Vecchia completed in Venice in 1649.⁷⁸ The details within the painting as well as the context and the artist make us think that the subject portrayed is Francis Mercury. Nevertheless, the date of the painting seems to suggest that he was in Venice earlier than is evidenced by the available sources. Although, in his letter of dedication to the reader, the printer of the second

⁷³ BL, Sloane MS 530, *Memoirs*, ff. 49^v-51^v (D^v-F^v). There are several accounts of his first visit to Sulzbach, one in his own memoirs; a second in the correspondence between Christian August's uncle, Wolfgang Wilhelm, the Duke of Neuburg, and his agent in Sulzbach, Johann Kaspar Gundermann. These letters are currently kept in the Bayerisches Hauptstaatsarchiv, Pfalz-Neuburg, Akten 627. See Volker Wappmann, *Durchbruch zur Toleranz: Die Religionspolitik des Pfalzgrafen Christian August von Sulzbach: 1622 – 1708*, Neustadt a.d. Aisch 1998, pp. 64-7. The case seemed to have been of interest to a wider range of German noblemen, as must be concluded from the letters that were sent to Ernst, Duke of Sachsen-Gotha. See Sietske Fransen, 'Die Rolle von Herzog Ernst bei der Verhaftung Franciscus Mercurius van Helmonts. Oder wie Herzog Ernst der Fromme einen Alchemiker verteidigte', in *Alchemie und Fürstenhof: Frühneuzeitliche Alchemica auf Schloss Friedenstein in Gotha*, ed. by Martin Mulsow and Joachim Telle (†) [in preparation]. An entirely different account of the event was noted down by John Finch in a letter to his sister Anne Finch (later Conway), see *Conway Letters*, pp. 86-7.

⁷⁴ *Conway Letters*, pp. 86-8. Letter dated 6 November 1653.

⁷⁵ *Conway Letters*, pp. 84-5.

⁷⁶ Helvig Dieterich, *Vindiciae adversus Otthonem Tackeniium*, Hamburg 1655, p.18: 'Franciscus Mercurius qui edidit posthuma patris per integrum mensem venetiis quam familiariter mecum vixit.'

⁷⁷ Heinz-Herbert Take, *Otto Tachenius (1610 - 1680): Ein Wegbereiter der Chemie zwischen Herford und Venedig*, Bielefeld 2002, pp. 36-8.

⁷⁸ Mulsow, *Prekäres Wissen*, pp. 265-75. The painting depicted in the book as Plate IV is catalogued as 'Portrait of Erhard Weigel' at the Chrysler Museum of Art in Norfolk, Virginia.

edition of the *Ortus medicinae* states that Tachenius and Francis Mercury were very good friends, it is not clear when they became acquainted with each other, and whether it had started with a personal encounter (in Venice) or via correspondence.⁷⁹

What we do know is that Francis Mercury came to Venice before the actual printing of the second edition, in 1651, which means that he was probably there in 1650. This edition was a collaboration between the Giunti family and Johan Jacob Hertz. In the letter to the reader, we learn that they were very keen on publishing the book and that Tachenius had provided the index to the book, which represented a remarkable improvement compared to the first Amsterdam edition. The proud printers advertised their folio edition of the *Ortus medicinae* by explaining that the printing process had taken longer than anticipated because of the production of the enormous index (38 pages), which contained references not only to page numbers but also paragraphs.⁸⁰ Additionally, this edition contains a list of definitions concerning fifteen technical terms ('Explicatio aliquot verborum artis') used by Van Helmont throughout the work. We shall return to this list in the next two chapters when discussing the reception of Van Helmont's language.⁸¹

The Giunti family were, like the Elsevier family in the Netherlands, a famous printing family. The heirs of Tommaso II Giunti (1582-1618) were leading the Venice branch of the famous family business, with offices and presses in Spain, Florence, Venice and Lyon.⁸² Johan Jacob Hertz (ca. 1617-1692), or Giovanni Giacomo as he was known in Italy, owned by the time of his death a famous bookshop in Venice, called 'The Ship' ('all'insegna della Nave').⁸³ Hertz was born and bred in Germany, and probably arrived in Venice with the help of the bookseller and printer Justus Wiffeldich, another German in Venice. Hertz started as an apprentice in Wiffeldich's printing house in Venice in 1635, a position which would introduce him to his master's useful networks. Hertz moved on to work for the Giunti family from 1641 onwards, at the time under the direction of Bernardo di Filippo, and he was able to open his own bookshop in 1645.⁸⁴ Due to a crisis in the Venetian book market, Hertz joined the Giunti family again during

⁷⁹ 'Typographus lectori suo', in J. B. van Helmont, *Ortus medicinae*, Venice 1651, sig. a1^{rv}: 'amicitiaque sibi conjunctissimum [est]'.

⁸⁰ 'Typographus lectori suo', in J. B. van Helmont, *Ortus medicinae*, Venice 1651, sig. a1^{rv}: 'Vir ipse humanissimus, mea nequidem expectata oratione, ne forsitan invitatus videretur dare, si rogatus, publico libentissime cedens, quem privato comparaverat usui, et commodo, copiosissimum hunc mihi largitus est indicem, cuius prior numerus paginam, secundus vero peragraphum notat.'

⁸¹ The full list is: Liquor Alkahest, Archeus, Blas, Duelech, Gas, Magnale, Magnum oportet, Leffas, Zenexton, Pulvis Vigonis, Elementum ignis Veneris, Aqua chrysulca, Aurum horizontale, Diacelatesson, Relolleum. See *Ortus medicinae*, Venice 1651, sig. [*6]^r.

⁸² William A. Pettas, *A History and Bibliography of the Giunti (Junta) Printing Family in Spain 1526-1628*, New Castle, DE 2005.

⁸³ All the information in this paragraph about Giovanni Giacomo Hertz and his activities as a printer and book seller are taken from Federico Barbierato, 'Giovanni Giacomo Hertz: Editoria e commercio librario a Venezia nel secondo '600', *La Bibliofilia* CVII (2005), pp. 143-170 (143).

⁸⁴ Paolo Camerini, *Annali dei Giunti*, 2 vols, Florence 1962, II, p. 310.

1650 and 1651, a period which would become one of his most productive.⁸⁵ It is at the time of this collaboration that the Venetian edition of the *Ortus medicinae* saw the light. As Federico Barbierato suggests in his article on Hertz, it might well be that the existing contacts between Wiffeldich and Lowijs Elsevier in Amsterdam were used by Hertz to get hold of the first edition of the *Ortus medicinae*. Although there were a certain number of Germans and Dutch in Venice at the time, it seems no coincidence that the trio of Hertz, Tachenius and Francis Mercury teamed up for the production of this medical work. The enterprise fell entirely into Tachenius's field of interest and expertise and, for him, represented a good opportunity to collaborate with Francis Mercury van Helmont. The publication must have been of commercial interest to all of them, given the success of the first edition and the fact that Hertz and Giunta had to pull the strings to survive the crisis that was affecting the book market. Moreover, Tachenius would see his name connected to one of the most important medical publications of the time.

To publish the *Ortus medicinae* in Venice, though, was not without risks, for the work contained some views long deemed as heterodox, a perception that was strengthened by Van Helmont's reputation. The license and privilege (*licentia et privilegium*) to publish this work, as it is stated on the title page of this edition, might have been fake, for there does not seem to be a file in the archives of Venice confirming the license. According to Barbierato, Hertz was in the habit of taking liberties with the regulations and would print false dates if necessary.⁸⁶ We can nevertheless be sure about the date of this work, 1651, due to the very brief moment of collaboration between Tommaso Giunta and Hertz and the evidence we have from various letters of the time.

That Francis Mercury's reputation was not flawless at the time can be gathered from the letters sent by John Finch to his sister and brother-in-law. Here he shared the information about Francis Mercury he was collecting from Tachenius. Finch was fully aware that the works of Van Helmont had conferred fame and benefits upon his son. This gave Francis Mercury a celebrity status, even though his actual medical skills were very limited:

I [Finch] wrote a long Latin letter to him [Tachenius] to know whether he was the Person that sett out Van Helmonts workes, assuring him that then I would awayt on him to know, whether he knew any great Cures effected by young Helmont, and particularly in the headach, or whether that he knew young Helmont pretended to an Universall Medicine. To all which he return'd me a civill reply in Latin, and told me he was the Man sett out that edition of Van Helmont, but as for cures effected by Helmont at Venice, he knew none though he was intimate with the young man, except a feavour after Nature had made the Crisis by Antimony fixed, which saith he, was owed rather to

⁸⁵ See for the published works of this collaboration: Camerini, *Annali dei Giunti*, II, pp. 417-26.

⁸⁶ Barbierato, 'Giovanni Giacomo Hertz' (as in fn. 83), pp. 161-2.

Nature then his Ars, nay sayth he, to speake as I ought, in a matter of so great importance: He is a very ignorant Person, and though I have diligently observ'd him I never knew him speake or doe any thing extraordinary.⁸⁷

A quick response from the Dutch: the publication of the third edition of the *Ortus medicinae*

The reputation of Francis Mercury did not jeopardize the fame and printing success of the *Ortus medicinae*, as is demonstrated by the publication of a third edition in Amsterdam, by Elsevier, just one year later. It is very likely that commercial reasons convinced Lowijs Elsevier to come out with a new edition of Jan Baptista van Helmont's work. Tachenius's index had made the Venice edition particularly valuable and must have triggered a certain fear that the first edition would sell less well. It should be said that Van Helmont's work, with its lack of structure, many different topics and numerous treatises, cried out for an index.

This seems to have been a common practice encouraged by competition between publishers - the publisher of a first edition had to publish an improved version to compete with a second edition published by a different publisher.⁸⁸ It could have been an easy and relatively cheap process for Lowijs Elsevier, re-using the text as it had been set by Fabel at the printing house and adding a new index. Apparently, this was not the case, for, although the first and third editions have the same quarto size, the setting of the text on the page is slightly different, entailing changes to the pagination and resulting in a third edition which is - also without counting the index - much more compact. Indeed, this was exactly how the publisher intended to advertise the book to his readers in the opening 'letter'.⁸⁹ In this sense, it was printed as a volume set in entirely new way.

A difference between the second and the third edition is the lack in the latter of a list of technical terms with their explanations. In the introduction, the publisher explains that he has introduced a thoroughly corrected and extended version of the index, much to the delight of the keen reader.⁹⁰ What we see upon comparing the indices is that the third edition index has a

⁸⁷ *Conway letters*, p. 86. Finch wrote these letters with his findings about Francis Mercury to the Conways, because they were looking for a physician who could potentially cure Anne Conway's eternal headaches. Francis Mercury would eventually go to Anne Conway in England, but almost 20 years later, in 1670 and he would stay with her until her death in 1679, without successfully curing her headaches.

⁸⁸ See the practice of the famous Amsterdam publisher Willem Janszoon Blaeu in Van Netten, *Koopman in kennis*, pp. 151-55.

⁸⁹ 'Amice Lector', in J. B. van Helmont, *Ortus medicinae*, 3rd ed., Amsterdam 1652, sig. Ii^r: 'quod commodiori etiam hujusce nostrae Editionis cum bono fructu uti fruique possis compacto.'

⁹⁰ See also the title of the index: 'Index rerum et verborum memorabilium. In docto hoc Opusculo locupletior et in ordinem digestior editus', in J. B. van Helmont, *Ortus medicinae*, 3rd ed., Amsterdam 1652, sig. Ii^v.

much more accurate alphabetical order than the index in the second edition. However, the index in the third edition is certainly not much larger.

There seems to be no evidence that Francis Mercury was personally involved in the preparation of the third edition in Amsterdam. It is also not clear where Francis Mercury resided after his visit to the court of Christian August in Sulzbach – Amsterdam and The Hague could have been an option as much as any of the German court town where he would have been welcome. A little digression on the commercial aspect of Francis Mercury's 'business' is appropriate here, as it seems an obvious question to ask how he earned his money. Traditionally, early modern authors of books would earn money for their products by dedicating their books to a patron, who would in return reward the author with a sum of money, and the author of the book could present his book to other potential patrons.⁹¹ However, the first and third editions of the *Ortus medicinae* have no dedication letters – or rather, they do, but they are addressed to God. From a commercial point of view this would not have been very beneficial, even though any acknowledgement of moral righteousness might have been valued very highly within both Catholic and Protestant circles. Nevertheless, it seems quite unlikely that Francis Mercury did not get anything out of the printing of his father's works; on the contrary, I would like to suggest that this afforded him protection and patronage from many noble families in Europe. Most probably, this happened in the traditional way of offering the book to potential patrons, even without letters of dedication. That such patronage was the source of his material support seems to be confirmed by Henry More in a letter to Anne Conway, in which he says that Francis Mercury 'does not profess Physick, but lives on his own earnings'.⁹²

France: a translation and the fourth edition of the *Ortus medicinae*

After editions appearing in Amsterdam and Venice, and translations across the Channel, the fourth edition takes us to the second largest printing city in France, Lyon. The links between the French editions (the fifth edition is also French) and Francis Mercury are not as clear as with the other editions and translations. Nevertheless, they are worthy of attention, since they attest to Jan Baptista van Helmont's reception in France in the years immediately after his death.

The first French translation of Van Helmont's works was published in Sedan in 1652 or shortly afterwards. Although the book holds no publication date, it does, however, contain a letter of dedication dated the 8th of October 1652.⁹³ Also, the work was refuted by Jacques Didier, a

⁹¹ Juliann M. Vitullo and Diane Wolfthal (eds), *Money, Morality, and Culture in Late Medieval and Early Modern Europe*, Farnham 2010, p. 77. See also Brian Richardson, *Printing, Writers and Readers in Renaissance Italy*, Cambridge 1999, especially Chapter 3 ('Publication in Print: Patronage, Contracts and Privileges').

⁹² Henry More to Anne Conway, 13 October 1670, in *Conway Letters*, p. 323.

⁹³ Abraham Bauda, *Doctrine nouvelle [...] Touchant les fievres*, Sedan 1652, sig. [†iii]r.

physician from Sedan, who published his critique in 1653. This provides us with a *terminus ante quem*.⁹⁴ The translation was written by Abraham Bauda, who described himself as the King's Surgeon in Sedan on the title page of his publication. Sedan was one of the Protestant centres in France at the time. It was home to an Academy modelled upon the one in Geneva (the later University of Geneva) and had accommodated the Winter King and his brother as students in the early seventeenth century. Their mother, Louise Juliana of Nassau, was the elder sister of the Duchess of Bouillon, Elizabeth, who reigned with her husband over the principality of Sedan.⁹⁵ Jean Jannon, the publisher of the Helmontian translation, was the Academy publisher and famous for the development of fonts based on Garamond.⁹⁶

In his letter of dedication to the Marquis de Fabert, Bauda felt the need to apologize for translating an author who was born under the Spanish king.⁹⁷ He also explained that he had communicated several times with Van Helmont and that he hoped the Marquis would forgive him for translating a 'Spanish' text, given the interesting doctrines of the author and the fact that they did not reflect at all the wild nature of the Spaniards.⁹⁸ After a brief introductory chapter on Van Helmont's medical theories of the four humours and ferments, Bauda translated the entire treatise on fevers, published originally in 1642 in the *Opuscula medica inaudita* ('du vivant de l'auteur').⁹⁹ This translation will be discussed in more detail in the Chapter 5.

As we have seen above, in the course of his life Jan Baptista van Helmont corresponded with several Paris-based French philosophers, who were both main figures in the early modern Republic of Letters. Marin Mersenne died in the year the *Ortus medicinae* saw its first edition, and Pierre Gassendi died several years later, in 1655, the year of the fourth edition. The 1650s, during Oliver Cromwell's reign in England, were also the period when several royalist English natural philosophers had found their (temporary) homes in France (mainly Paris). The circle of scientists around Marin Mersenne, which included some of these Englishmen, and the Dutch father and son Huygens, would soon form the basis for the Académie des Sciences, which was founded a few years after the English Royal Society.¹⁰⁰ As Lawrence Principe has shown in his recent article on Kenelm Digby in France, not only within the circles of the newly established Royal Societies, but also within other networks, such as the Hartlib circle and the Bourdelot

⁹⁴ Jacques Didier, *Refutation de la doctrine nouvelle du Sieur Helmont: Touchant les fievers*, Sedan 1653. For a brief description of the refutation, see Allen G. Debus, *The French Paracelsians: The Chemical Challenge to Medical and Scientific Tradition in Early Modern France*, Cambridge 1991, pp. 116-18.

⁹⁵ Paul Mellon, *L'Académie de Sedan, centre d'influence Française*, Paris 1913, esp. pp. 7-90.

⁹⁶ *Ibid.*, p. 65-6.

⁹⁷ Didier's refutation is dedicated to the same Marquis de Fabert.

⁹⁸ Bauda, 'Dedication letter', in *Doctrine nouvelle*, sig. † ii^v: 'Bien qu'il suit né suiet du Roy d'Espagne, et que j'aye communiqué quelque temps avec luy avant qui vous le faire voir: j'espere neantmoins que vous me le pardonerez, puis que nostre entretien n'a esté que contre les maximes pernicieuses adorees dans les Escholes de Medecine. La Doctrine de cet Autheur n'a rien du naturel farouche des Espagnols.'

⁹⁹ Bauda, *Doctrine nouvelle*, sig. † i^v.

¹⁰⁰ E. Fauré-Fremiet, 'Les Origines de L'académie des Sciences de Paris', *Notes and Records of the Royal Society of London* XXI (1966), p. 21-3.

Academy, an intense communication was taking place, ranging from scientific discussion to the whereabouts of the acquainted scholars. The rediscovered manuscripts of Digby contain various letters that give insightful examples for the width of the network of correspondences.¹⁰¹ This is of importance in forestalling any tendency to see developments in England and France in the 1650s and 1660s as isolated cases. By contrast, there was a constant flow of letters and visits, back and forth across the Channel.¹⁰²

The publisher of the fourth edition of Van Helmont's *Ortus medicinae* was Jean-Baptiste Devenet, who had his workshop in Lyon. While between 1645 and 1655 he published under his own name, between 1656 and 1659 he worked together with his Lyon colleague Laurent Anisson. Together they published Gassendi's *Opera omnia* in 1658.¹⁰³ Although Lyon did not have a university, it did have a College de la Médecine, founded in 1578, where physicians and surgeons were able to obtain a license to practise there.¹⁰⁴ As one of France's larger towns, it had a considerable amount of physicians and surgeons.¹⁰⁵

The licence to print Van Helmont's books, given to Devenet by the King, was signed on the 30th of December 1653 (with the first copy of the book printed on the 4th of January 1655). This means that, just after a year from the third edition of the *Ortus medicinae*, Devenet thought it feasible to publish another edition of Van Helmont's works.¹⁰⁶ Interestingly, in the same year Devenet also published a book in defence of Van Helmont's theories.¹⁰⁷ Honoré Maria Lautier, a medical doctor, and the author of the letter of dedication is, according to Marie-Anne Merland, also the author of the book.¹⁰⁸ He dedicated his *Apologia* to Melchior de la Roque, Baron of Gontard, who only received this title some two years earlier, but was nevertheless one of the presidents in the *parlement* of Aix in the South of Provence.¹⁰⁹ Unlike Lyon, Aix had a medical faculty at the time. This explains Lautier's dedication and probably his hope that Van Helmont's theories might be integrated into the university curriculum. Lautier defended Van Helmont's method and asked De la Roque to be a patron to these ideas rather than a mere

¹⁰¹ Lawrence M. Principe, 'Sir Kenelm Digby and His Alchemical Circle in 1650s Paris: Newly Discovered Manuscripts', *Ambix* LX (2013), pp. 3–24.

¹⁰² Harcourt Brown, *Scientific Organizations in Seventeenth Century France (1620-1680)*, Baltimore 1934.

¹⁰³ Marie-Anne Merland, and Guy Parguez (eds), *Répertoire bibliographique des livres imprimés en France au XVII^e siècle*, Baden-Baden 1989. Vols 16, 18, 22, 25 and 26 contain the information about Lyon. For Devenet see vol. XXII, p. 244; for Anisson, vol. XVI, p. 83.

¹⁰⁴ Henri Hours, 'L'art médical et les médecins lyonnais au dix-septième siècle', *Lyon et la médecine: 43 avant J.-C. - 1958*. Special Issue of *Revue Lyonnaise de Médecine* VII (1958), pp. 125-26.

¹⁰⁵ Laurence W. B. Brockliss and Colin Jones, *The Medical World of Early Modern France*, Oxford and New York 1997, p. 204.

¹⁰⁶ 'Extraict de Privilege du Roy', in J. B. van Helmont, *Ortus medicinae*, Lyon 1655, sig. [c6]^v.

¹⁰⁷ Honoré Maria Lautier, *Magnifici viri Ioannis Baptistae Van-Helmont apologia adversus doctrinae novitatem praetendentes*, Lyon 1655. Dedication letter is signed on the 10th of May 1655, and therefore after the new edition of the *Ortus medicinae* was available.

¹⁰⁸ *Répertoire bibliographique des livres imprimés*, Vol. XXII, p. 247, no. 24.

¹⁰⁹ Sharon Kettering, *Patrons, Brokers, and Clients in Seventeenth-Century France*, New York 1986, p. 88; Guillaume Blanchard, *Compilation chronologique contenant un recueil en abrégé des ordonnances ... des rois de France*, 2 vols, Paris 1715, I, p. 2029.

judge.¹¹⁰ The fact that Devenet published this defence of Helmontian medicine can be seen as a further promotional step towards the sales of his recent Van Helmont edition.

Like the edition published in Venice, Devenet's Van Helmont is in folio. It contains an index similar to the one printed at the back of the third edition, with few omissions and additions, and the list of technical terms, identical to the one in the Venice edition, only positioned at the very end of the volume, after the indexes. In addition, Devenet's edition includes a second index referencing the texts of the *Opuscula medica inaudita*. There are no introductory letters, apart from the extract of the King's licence to print the book in France.

Back home: Brussels and Amsterdam: the first publication of the *Dageraed*.

Soon after the publication of the fourth edition in France, Francis Mercury was honoured with a book dedicated to him. This came in the form of a 1656 edition of Johann Tauler's *Nachfolgung des Armen Lebens Christi* published by Christoph Le Blon. He called Francis Mercury his master (*mein Herr*) and himself his servant (*Diener*).¹¹¹ This is an interesting development since Francis Mercury had been serving his own masters thus far to receive privileges and wages and eventually secure the publication of his father's books.

To understand this new situation, it is useful to be aware of Francis Mercury's own functions during the previous ten to twelve years following his father's death. His connections with the Palatine family, whose members were dispersed across Europe after the Peace of Westphalia in 1648, brought him in contact with a large variety of people: from the Count of Sulzbach, the Archbishop of Mainz and Emperor Ferdinand III to the physician-chemist Otto Tachenius in Venice, the publisher Lowijs Elsevier and the aforementioned Christoph Le Blon. It seems that Francis Mercury had become a well-connected messenger, mediator and agent, operating among noble families throughout Europe. Agents took part 'as active participants in the early modern process of cultural transfer' as Marika Keblusek discusses in the introduction of the book *Your Humble Servant: Agents in Early Modern Europe*.¹¹² She argues moreover that the term agent should be understood as 'a *function* rather than a *profession*', meaning that activities of intermediation were taken on by people with other professions, such as merchants, bankers, librarians or

¹¹⁰ H. M. Lautier, 'Dedication letter', in *Magnifici viri Ioannis Baptistae Van-Helmont apologia*, pp. 8-9: 'Verum Helmontii consilium, non eius hic tueor Doctrinam: non Galeni, non Aristotelis adsum adversario, sed veritatis adsum Clienti, eiusdemque adipiscendae desiderium, conatus, artes eodem laudo consilio, tueor, deffendo. Haud huius attamen te rei amabo iudicem, Praeses Sapientissime, sed Patronum; tua scilicet in Patrem, in me beneficia, nostra in te obsequia ambiciose adeo et vere praedico, ut sedere meae causae minus prospere Iudex, quam adesse Patronus, possis.'

¹¹¹ Christoph Le Blon, 'Dedication Letter', in Johann Tauler, *Nachfolgung des Armen Lebens Christi*, Frankfurt 1656, pp. 2-3.

¹¹² Marika Keblusek, 'Introduction: Profiling the Early Modern Agent', in Hans Cools, Marika Keblusek and Badeloch Noldus (eds), *Your Humble Servant: Agents in Early Modern Europe*, Hilversum 2006, p. 10.

diplomats.¹¹³ Francis Mercury seems to have had many different functions at the same time. While he was travelling through Europe as a physician, he was also advising the Palatine family on personal matters, and acting as their agent at other courts. He had become the first adviser of Christian August, Count of Sulzbach in all kinds of matters, especially religious ones. His many travels allowed him constantly to connect and re-connect to people, to bring news from one place to the other, to bring books and find new publications, while being busy publishing his father's works. An interesting aspect of the dedication written by Christoph Le Blon is that he apparently had accrued enough social esteem to be viewed as more than an agent, indeed, a master himself.

Christoph Le Blon (? – 1665) was an engraver, bookseller, publisher in Frankfurt.¹¹⁴ His father had immigrated together with his own mother and brothers to Frankfurt from Valenciennes in the Southern Netherlands for religious reasons.¹¹⁵ Christoph's eldest brother Michel (1587-1656) moved to Amsterdam in the beginning of the seventeenth century, but it is not entirely clear where Christoph resided, until he showed up again in the Frankfurt register early in 1639.¹¹⁶ In the same year, he married the oldest daughter of the famous Matthäus Merian the Older, for whom he worked as an engraver in Frankfurt. As a result of this marriage, he inherited part of Merian's book shop and furthermore acquired his publishing rights in 1641.¹¹⁷ By that time, his brother Michel, who worked as a goldsmith and engraver, had already built up a large network of influential people in Amsterdam. In addition to this he worked as an official agent for the Swedish chancellor since 1632 and was in contact with Hartlib in England to become his agent as well, as we can find in the latter's correspondence with his Amsterdam contact Johann Moriaen.¹¹⁸ Christoph worked together with some Amsterdam publishers, such as Hendrick Beets (Betkuis), the main publisher of Jakob Böhme's works in the Netherlands.¹¹⁹ This resulted in publications with the names of the two publishers on the title page, one based in Amsterdam, the other in Frankfurt.¹²⁰ This confirms not only the family relations between

¹¹³ Ibid., p. 9.

¹¹⁴ Josef Benzing, 'Die deutschen Verleger des 16. und 17. Jahrhunderts: Eine Neubearbeitung', *Archiv für Geschichte des Buchwesens* XVIII (1977), p. 1200; Wappmann, *Durchbruch zur Toleranz*, p. 167, fn. 34; Alexander Dietz, *Frankfurter Handelsgeschichte*, 5 vols, Frankfurt am Mainz 1910-1925, III, pp. 139-40.

¹¹⁵ 'Michel Le Blon: Graveur, Kunsthandelaar, Diplomaat', in Herman de la Fontaine Verwey, *Uit de wereld van het boek*, 4 vols, Amsterdam 1975-97, II, pp. 103-4.

¹¹⁶ Badeloch Vera Noldus, 'A Spider in Its Web: Agent and Artist Michel le Blon and His Northern European Network', in Marika Keblusek and Badeloch Vera Noldus (eds), *Double Agents: Cultural and Political Brokerage in Early Modern Europe*, Leiden 2011, pp. 161-2; Benzing, 'Die deutschen Verleger', p. 1200.

¹¹⁷ Benzing, 'Die deutschen Verleger', p. 1200.

¹¹⁸ Information on Michel le Blon and the family history of the two brothers, see Badeloch Vera Noldus, 'A Spider in its Web', pp. 161-91; Correspondence between Hartlib and Moriaen regarding Leblon's services, see Moriaen to Hartlib, 11 June 1649, SUL, HP 37/137A-B; 2 July 1649, SUL, HP 37/139A-B; and October 1650 SUL, HP 37/161A-162B.

¹¹⁹ Willem Heijting, *Profijtelijke boekskens: Boekcultuur, geloof en gewin*, Hilversum 2007, pp. 216-26.

¹²⁰ Ibid., pp. 219-20.

the Le Blons in these two cities, but also the professional relationship between the Frankfurt publisher Le Blon and his Amsterdam colleagues.

Both brothers Le Blon had an interest in Böhme. Michel translated one of Böhme's treatises into Dutch, while Christoff translated some of Böhme's works into French.¹²¹ The interest in mysticism expressed by these translations is in keeping with the publication by Christoph Le Blon of Tauler's *Nachfolgung des Armen Lebens Christi*. Tauler's book had been previously published in 1621 by another Frankfurt publisher, but this publication was unavailable, if we can believe Le Blon's words in his letter of dedication. He eventually managed to get hold of it through the help of his master (i.e. Francis Mercury) who had given the search for the book all his efforts ('mein Herr [hat] allen Fleiß und Mühe gethan'). And in honour of these efforts he decides to give the book back to him in translation by dedicating the work to him.¹²²

His gesture paid off, as Francis Mercury introduced Christoph to Christian August of Sulzbach during the Emperor's coronation in Frankfurt in July 1658, opening the way to Christoph's appointment as one of the bankers of Christian August.¹²³ Hence, despite the fact that Francis Mercury had still not published anything of his own, travelling around on behalf of other people, he built up his own massive network throughout Europe, which furnished him with support when needed.

In line with the dedication and Francis Mercury's increased influence, another event in 1658 shows that he had become a well-established person. In a patent letter dated the 3rd of August 1658, Francis Mercury was granted the noble title of Baron by the newly crowned Emperor on the basis of his many years of service to the previous Emperor Ferdinand III and to many Electors and Princes of the Empire. In this capacity, he had provided advice on many difficult questions, promoting peace and friendship.¹²⁴ Henry Oldenburg reported to Boyle about the

¹²¹ Fontaine Verwey, *Uit de wereld van het boek*, II, p. 122.

¹²² 'Dedication Letter', in Johann Tauler, *Nachfolgung des Armen Lebens Christi*, p. 3: '[D]aß Büchlein von der Nachfolge des Armen Lebens Christi beschrieben so im Jahr 1621 durch H. Christophorum Besoldu I.V.D. und Professoren zu Tübingen zum erstenmal im Truck befördert worden. Davon die Exemplar so häufig und geschwind abgangen, daß lange Zeit keines mehr zu bekommen, und sehr viel nachfragens darnach gewesen. Dassenhero etlich gute Gemüter mir hart angelegen, selbiges wider ufs neue ufzulegen welches ich zwar gern gethan hette, aber auß mangel eines Exemplaris noch zur Zeit unterlassen müssen: Biß das entlich nach deme ich mich dessen bey unterschiedlichen auch meinem Herrn selbstem beklagt mein Herr allen Fleiß und Mühe gethan, daß Er mir eines durch guten Freunds hand zu wegen bracht Dardurch uch Ursach genomen meinem Herrn dasselbige wider zu zu eigenen.'

¹²³ Wappmann, *Durchbruch zur Toleranz*, p. 167; Wilhelm Schmidt-Biggemann, *Geschichte der christlichen Kabbala*, 4 vols, Stuttgart-Bad Cannstatt 2012-15, III, p. 6.

¹²⁴ This letter patent was published in Francis Mercury's *Paradoxal Discourses*, London 1685, pp. 206-15. From pp. 207-8: 'Considerantes itaque Generosum et Magnificum Nostrum et Sacri Imperii fidelem dilectum Franciscum Mercurium ab Helmont Toparcham in Merode, Royenbourg et Oorschot, ante decennium fere, ad Divi quondam Imperatoris Ferdinandi Tertii, Domini Genitorii, et Praedecessoris Nostri colendissimi, Augustae memoriae Caesarem evocatum Aulam, tam ibi, quam postmodo apud diversos Electores atque Principes Imperii detentum atque occupatum fuisse, intra quod temporis spatium, ipsum aspirante Divina benignitate, statui salutique publicae in conciliandis non nullis sublimibus, et Illustrissimis Ducum Principumque Familiis componendis sopiendisque plurimis arduis

‘splendid diploma’ by which the Emperor had made Francis Mercury a Baron, and went on saying that he could have received the title of Count, ‘if his modesty had not declined it’.¹²⁵ The letter of recommendation was written by the Elector-Archbishop of Mainz, Johann Philipp von Schönborn, who would play a major role in the arrest of Francis Mercury just three years later.¹²⁶ In his letter of recommendation, Francis Mercury was mentioned as about to leave Germany for the Low Countries to deal with the inheritance of his recently deceased grandmother.¹²⁷

It was probably during this visit that, while clearing out the house, Francis Mercury found the Dutch text written by his father.¹²⁸ In the German translation of Jan Baptista van Helmont’s works, published 24 years later in 1683, Christian Knorr von Rosenroth would recount how Jan Baptista had given the Dutch text to his daughter and how a friend had found it one day and published immediately.¹²⁹ Although this might represent one possibility, the presence of Francis Mercury in Brussels in 1658, a year before the publication of the *Dageraed, oft nieuwe opkomst der geneeskonst* in Amsterdam, combined with his hands-on approach towards publishing his father’s works, suggests that he might have been involved in the process.

The book is published in Amsterdam, like the first and third edition of the *Ortus medicinae*. One would expect Elsevier to publish this text, too, but this was not the case, for the *Dageraed* was printed by Jan Jacobsz. Schipper, an Amsterdam publisher specialised in the publication of Dutch texts. Between 1649 and 1669, Schipper, and later his widow, published several editions

difficilibus et inveteratis controversis procuranda, conservanda, stabilienda, propagandaque Pace amicitia bonaque et sincera confidentia aliisque plurimis modis fidelem, et fructuosam operam praestitisse, adeoque se ipsum et omnia sua, publicis utilitatibus quasi devovisse neque ullum laborem vel difficultatem, itinerum item, legationum, commissionumque molestiam subterfugisse, neque sumptibus sane non exiguis, huic operi continue, atque se suo impendendis, se a tam salutari proposito atque instituto deterri passum esse. Quibus suis praeclaris ac Generoso animo dignis actionibus, nobis partim ex propria scientia, partim aliorum maxime, conspicuorum virorum, fideli relatione notissimis, non immerito clementissime favemus et applaudimus.’

¹²⁵ Henry Oldenburg to Robert Boyle, 10 September 1658, in Henry Oldenburg, *Correspondence*, ed. by A. Rupert Hall and Marie Boas Hall, 13 vols, Madison 1965, I, p. 177

¹²⁶ Fransen, ‘Die Rolle von Herzog Ernst bei der Verhaftung Franciscus Mercurius van Helmonts’ [in preparation].

¹²⁷ Van de Velde, ‘Helmontiana II’, p. 717; Francis Mercury van Helmont, *Paradoxal Discourses*, p. 208: ‘Nobis humilime exposuit Nobilis et Illustris Franciscus Mercurius ab Helmont, Dominus in Merode, Royenbourg, et Oorschot, se ad capessendam Avunculi quondam sui, Baronis de Merode atque Aviae ejusdem stemmatis jacentem haereditatem, in patriam revocari.’ In the sources we do not find any about the death of either of his grandmothers; we only know that his own mother died on the 31st of December 1654. This event might have prompted him to return in combination with the new title, which affected his extended family.

¹²⁸ Both sisters of Francis Mercury, Pelagia-Lucie and Olympia-Clara, were not yet married at the time, according to the letter patent by Emperor Leopold. Nevertheless, of the two relatives who were mentioned in the same letter, and who were also granted the titles of Baron, one, Ambrose de Megem, would soon become Olympia-Clara’s husband. Pelagia-Lucie never married and went most probably to a convent. See F. M. van Helmont, *Paradoxal discourses*, p. 211 and Broeckx, ‘Notice sur le manuscrit Causa J. B. Helmontii, Déposé aux archives archiépiscopales de Malines’, *Annales de l’Académie Archéologique Belgique*, IX (1852), p. 277.

¹²⁹ See the quotation as used in the Introduction, p. 23; and Knorr von Rosenroth, *Aufgang*, sig.)(iii^v.

of the very popular medical works by Johan van Beverwijck (1594-1647).¹³⁰ This physician from Dordrecht wrote, among other things, three books on medicine in Dutch. The medical chapters in these books are intertwined with emblems and poems on medicine by the famous Dutch poet Jacob Cats (1577-1660). This contemporary of Van Beverwijck and fellow-citizen of Dordrecht was very popular among Dutch readers at the time, and his contributions must have provided an enormous boost to the sales of Van Beverwijck's medical works. Whether Jan Jacobsz. Schipper thought that the publication of Van Helmont's Dutch works would be a similar success is speculation, but he must have been rather disappointed when he realized that Van Helmont's *Dageraad* did not sell very well.¹³¹ What is more, the Rotterdam publisher and book seller Joannes Naeranus seems to have bought up the entire stock of Schipper's *Dageraad* already in 1660, just one year after the first publication. Naeranus sold the book with a new title page, now spelling the title as *Dageraad*, and obviously his own name instead of Schipper's. The rest of the book is entirely identical to Schipper's edition.

John Chandler and the first full translation of the *Ortus medicinae*.

It cannot be ruled out that Francis Mercury visited England in the years between 1658 and 1661, as Allison Coudert has shown on the basis of correspondence amongst Quakers in England and undated entries in Francis Mercury's *Memoirs*.¹³² The Quakers, a religious Protestant movement whose members ('friends', in their own words) believed that every individual had the inner light or Light of Christ, started to spread widely in and outside England from the 1650s onwards.¹³³ Francis Mercury had met several of them in 1659 at the court of Charles Louis in Heidelberg. Amongst them was William Ames, a Quaker from England, who tried to found a Quaker community in Heidelberg, and about whom Francis Mercury reports in his *Memoirs*.¹³⁴ The Quaker beliefs probably intrigued him from his first encounter with them, even though it would take him many more years before officially joining the Quakers. We will say more about this point later in the dissertation.

In 1660 George Fox, the founder of the Quakers, wrote about a German ambassador who attended one of their Friends' Meetings in London. This could well have been Francis Mercury

¹³⁰ Lia van Gemert, 'Johan van Beverwijck als "instituut"', *De Zeventiende Eeuw* VIII (1992), pp. 99–106; Short Title Catalogue Netherlands (STCN), accessed online picarta.pica.nl, on 18-11-2013; Marcel van der Knaap, 'Jan Jacobsz. Schipper, 'Amsterdams boekverkoper, vertaler, bewerker 1617-1669'', Doctoral Thesis, University of Amsterdam, 1989.

¹³¹ There are not many copies left in libraries around the world even today, in comparison with the *Ortus medicinae*. Equally significant is the lack of signs of usage (annotations, underlining, dog-ears) in the copies I have seen in German, Dutch and British libraries.

¹³² Coudert, *Impact of the Kabbalah*, pp. 37-9.

¹³³ Kate Peters, *Print Culture and the Early Quakers*, Cambridge 2005, pp. 2-3.

¹³⁴ Sloane MS 530, BL, *Memoirs*, ff. 53v-54v (Hv-Iv).

in his function as agent and ambassador for the Palatine family.¹³⁵ It is not only the descriptions by Fox, some passages in Francis Mercury's *Memoirs* and the fact that Francis Mercury had already met some Quakers in Heidelberg that make his visit to London plausible; it is also the fact that another Quaker, John Chandler, translated the *Ortus medicinae* into English precisely around this period.¹³⁶ John Chandler is an interesting figure whose interest in Jan Baptista derived from two sources. He studied at Magdalen Hall in Oxford, as is mentioned on the title page of his translation. This is the same college where Walter Charleton studied. The latter was still there when Chandler matriculated in 1641, which was just one year before another Helmontian, the physician Thomas Sydenham (1624-1689), also matriculated at Magdalen Hall.¹³⁷ Sydenham fought on the side of the Parliamentarians during the Civil War and it was at the end of the Civil War that he received decisive encouragement from a doctor, Thomas Coxe, to continue his studies in medicine in Oxford. Coxe was acquainted with the Hartlib's circle and might have inspired him to study Van Helmont as well. As we have already seen in the section on Charleton's translations, there was a strong interest in empiricism and iatrochemistry in Oxford at the time when Charleton was there, channelled by John Wilkins and again after 1648, when the latter returned to Oxford. Interestingly, Wilkins was the Chaplain to Prince Rupert while the latter was in England, fighting on the side of his uncle during the Civil War.¹³⁸ In view of Francis Mercury's close connections to the Palatine family, he would most certainly have heard of Wilkins by the late 1640.

As for the second reason that might have stimulated Chandler's interest in Jan Baptista van Helmont's work, it may be argued that Francis Mercury's acquaintance at the time with Quaker personalities could have prompted Chandler to embark on the translation enterprise. As reported by Oldenburg after meeting Francis Mercury in Germany in September 1658, the latter maintained that 'most solid knowledge comes from within a man' and mistrusted 'the toy of books, whereby he thought there was but another mans image and contrefait imposed upon us, and we detained from ever knowing ourselves'.¹³⁹ These were views that were very similar to the ones shared by the Quakers.

¹³⁵ George Fox, *The Journal of George Fox*, ed. by Norman Penney, 2 vols, Cambridge 1911, II, p. 4.

¹³⁶ Clericuzio calls John Chandler a Quaker without further reference, in 'From van Helmont to Boyle', p. 322. Neither Walter Pagel, nor Allison Coudert mention him as a Quaker. We can, however, be almost certain that the John Chandler who published several works between 1659 and 1662 in favour and defence of the Quakers is the same as the John Chandler who was 'sometime at Magdalen Hall in Oxford', as he is referred to on the title page of the second edition of his translation. One reason to believe that we are talking about the same person is the reference by Charles Leslie (1650-1722), who wrote in 1696 that 'J. Chandler [...] was something of a scholar beyond the common Quaker level', in Charles Leslie, *The Snake in the Grass, or Satan transform'd into an Angel of Light*, London 1696, pp. CCCXXVIII-CCCXXIX.

¹³⁷ Harold J. Cook, 'Sydenham, Thomas (*bap.* 1624, *d.* 1689)', in *ODNB* [<http://www.oxforddnb.com/catalogue/urlls.lon.ac.uk/view/article/26864>, accessed 12 June 2014]

¹³⁸ Oldenburg, *Correspondence*, I, p. 95, fn. 1.

¹³⁹ Oldenburg to Boyle, 10 September 1658, in *ibid.*, I, p. 177:

Chandler published his translation in 1662 with Lodowick Loyd in London under the title *Oriatrike, or, Physicke Refined*.¹⁴⁰ His introduction to the reader ‘The Translators Premonition to the candid Reader’, is preceded by another introduction ‘To the English Reader’, written by H. Blunden, praising van Helmont, who ‘now dictates in thine own Dialect’.¹⁴¹ Who this H. Blunden is, is not entirely clear. It might well be Henry (or Humphrey) Blunden, the printer-publisher and translator, who, himself a chemist, turned several texts by Jacob Boehme into English and who was closely related to the Hartlib circle.¹⁴² This would clearly be a person equipped with the necessary expertise to contribute to the translation.

Chandler’s introduction reflects some clear Quaker statements and influences as can be seen from the following passage in which he compares the work of Van Helmont to some biblical lines.

How truly these sayings may be applied unto this Author, with respect to the Schools both of Logick, Natural Phylosophy, Astrology, Theology, and in particular those of Medicine, both as to the Theorie and Practick part thereof, I may singly refer the judgement thereof unto him that hath the least measure of true Understanding, without any further enlargement, because such a one, who with the Lamp or Candle of God being lighted in him (whereunto the Author bears his Testimony in opposition to blind Reason, in the Chapter of the searching or hunting out of Sciences) is able to see in his measure, eye to eye, *or as Face answereth to Face in a glass*.¹⁴³

Two years later, in 1664, a second edition was published by Lodowick Loyd in London, with a different title – *Van Helmont’s Workes, Containing his most excellent Philosophy, Physicke, Chirurgery,*

¹⁴⁰ Jan Baptista van Helmont, *Oriatrike or, Physicke Refined. The Common Errors therein Refuted, and the Whole Art Reformed & Rectified: Being a New Rise and Progress of Phylosophy and Medicine, for the Destruction of Diseases and Prolongation of Life ... Now Faithfully Rendred into English, in Tendency to a Common Good, and the Increase of True Science; by J. C. Sometime of M.H. Oxon*, tr. by John Chandler, London 1662.

¹⁴¹ H. Blunden, ‘To the English Reader’, in *Oriatrike or, Physicke Refined*, sig. A[1]^r.

¹⁴² See on H. Blunden: Ariel Hessayon, ‘Blunden, Humphrey (b. 1609, d. in or after 1654)’, in *ODNB* [<http://0-www.oxforddnb.com.catalogue.ulrls.lon.ac.uk/view/article/59849>, accessed 29 Nov 2013]; and idem, *‘Gold Tried in the Fire’: The Prophet Theaurau John Tany and the English Revolution*, Burlington 2007, pp. 297-300. Hessayon argues that we have to distinguish three different ‘H. B.’s, namely, 1) H. Blunden, the printer/publisher/translator, 2) H. Blunden who was licensed to practise medicine, and 3), Humphrey Blundell, who is, according to Hessayon, ‘a Shropshire educated and a former pupil of Charles Hotham’s’. A search through Oxford and Cambridge matriculation registers fails however to locate a Blunden (and one would have needed an university degree to be a licenced physician), but nevertheless a ‘Humphrey Blundell’ from Shropshire, matriculated at Peterhouse, Cambridge (see John Venn and J. A. Venn, *Alumni Cantabrigienses*, 4 vols, Cambridge 1922-1927, I, p. 170). The only source where we can find a H. Blunden who is licensed to practise medicine is, to my knowledge, in the signature of the introduction to John Chandler’s Van Helmont translation. I cannot rule out the possibility that this is, in the end, the same H. Blunden as the printer, translator and alchemist.

¹⁴³ John Chandler, ‘The Translators Premonition to the Candid Reader’, in *Oriatrike or, Physicke Refined*, sig. a[1]^v.

Anatomy.¹⁴⁴ Chandler's version was the first complete translation of the *Ortus medicinae* and *Opuscula medica* into a vernacular and would have a major impact on English medicine. Against the backdrop of a culture that was becoming increasingly more attracted to investigation of an empirical tenor and more prone to use English as the language of communication, this text arrived at the right time.

Just before the publication of Chandler's first edition, events had taken a turn for the worse for Francis Mercury. On his way back from Amsterdam to Sulzbach in January 1661, he was arrested on behalf of the Inquisition by his former friend Johann Philipp von Schönborn, Archbishop of Mainz. The charges concerned alleged attempts to undermine Christian August's attachment to the Catholic faith (to which he had just converted), heresy and even Judaism.¹⁴⁵ He was eventually held captive for eighteen months, most of which were spent in prison in Italy. On the basis of previously unexamined material, the correspondence of Ernst I, Duke of Saxe-Gotha, I have argued that there were more and different religious reasons behind the arrest and incarceration of Francis Mercury.¹⁴⁶ The various letters that Duke Ernst wrote to receive information about Francis Mercury and the letters his agents wrote to the Duke explaining the contemporary situation, the whereabouts of Francis Mercury, and especially the political position of the main characters involved (the Archbishop of Mainz, Philipp Wilhelm of Neuburg and Christian August of Sulzbach), indicate that Francis Mercury was a pawn in a game of political chess.

The circumstances of his imprisonment were clearly not particularly severe, if we consider the fact that one of Ernst's agents in Nuremberg, a certain Mr Tilherr, reported about Francis Mercury's wish to have a dancing master (*Dantzmeister*) during his custody in Venice in February 1662.¹⁴⁷ Whether he learned to dance in this period is unclear, but he described how he wrote his first book at the time of his imprisonment. This book, *Alphabeti vere naturalis Hebraici brevisissima delineatio* on Hebrew as the original language was published in 1667 in Sulzbach by Abraham Lichtenthaler. Lichtenthaler had a publishing house in Sulzbach with one of the major Hebrew printing presses in Europe at the time. And it is very likely that Francis Mercury and

¹⁴⁴ Jan Baptista van Helmont, *Workes, Containing his most excellent Philosophy, Physick, Chirurgery, Anatomy; Wherein the Philosophy of the Schools is Examined, the Errours therein Refuted, and the Whole Art Reformed and Rectified*, translated by John Chandler, London 1664.

¹⁴⁵ For transcripts of many of the Italian documents and the charges made by Philipp Wilhelm of Neuburg regarding the arrest of Francis Mercury, see Coudert, *Impact of the Kabbalah*, Appendices I & II; Klaus Jaitner, 'Der Pfalz-Sulzbacher Hof in der Europäischen Ideengeschichte des 17. Jahrhunderts', *Wolfenbütteler Beiträge* VIII (1988), pp. 395–404.

¹⁴⁶ Two folders with letters to and from Ernst I, Duke of Saxe-Gotha, are currently kept at the Thuringian State Archives in Gotha, Geheimes Archiv F. III. O i, Nr. 1 & 5. Oliver Humberg refers to these documents, so far neglected, in his catalogue of the alchemical works in Gotha. See Oliver Humberg, *Der alchemistische Nachlaß Friedrichs I. von Sachsen-Gotha-Altenburg*, Elbersfeld 2005.

¹⁴⁷ Gotha, Thuringian State Archives, Geheimes Archiv F. III. O i, Nr. 5, f. [2]^v and f. 61^{rv}.

Christian Knorr von Rosenroth were strongly involved in the setting up of this printing press.¹⁴⁸ In the same year, the fifth edition of his father's works appeared, once again in Lyon.

Back to Lyon: the fifth edition of the *Ortus medicinae* and another French translation

The first collaborative project between Jean-Antoine Huguétan and Guillaume Barbier was the publication of the fifth edition of the *Ortus medicinae*.¹⁴⁹ This edition is a reprint of the fourth edition published by Devenet, who had died in 1660. Barbier was one of his successors and would therefore have had access to the copper plate by Nicolas Auroux, who engraved the frontispiece for Devenet's edition.¹⁵⁰ Huguétan on the other hand, was specialised in publishing scientific and theological works (including those of Alsted, Sennert, Cardano, and Casaubon). This made Van Helmont's text a good place to launch their collaboration.¹⁵¹

The entire first part of this edition, i.e., the *Ortus medicinae*, is an exact reprint of the 1655 edition. Only the names of the publishers and the year of publication have been changed – it is even called the 4th edition. The second part of this publication, the *Opuscula medica inaudita*, is actually a new edition, the sixth one in fact, the *Opuscula medica* having seen its first edition in 1644. The pagination of the editions is kept so similar that the indices remain the same; hence, there is an index for the *Ortus medicinae* and one for the *Opuscula medica*. Also the *approbationes* from the first 1644 edition of the *Opuscula* are simply reprinted, like in the previous editions of the *Ortus medicinae*. Of all the seven editions of the *Ortus medicinae*, the two French editions are the ones least directly connected with Francis Mercury's life. There are no dedicatory letters, or poems, which might have provided us with more contextualising information, nor have I been able to find any correspondence which refers to the publication of these editions. The first edition, however, must have sold enough copies to justify a second one. From the immediate responses in print (see also Le Conte's translation below), we can conclude that there must have been an audience for these editions. What is more, the ambivalence triggered by Helmontian ideas had not changed, especially in contexts characterised by debates about the relationship between old and new medicine. This debate was still prompting apologies and refutations.

The second French edition did not stand alone. Huguétan and Barbier also published another French version entitled *Les oeuvres de Jean Baptiste van Helmont*, translated by Jean le Conte.¹⁵² Jean le Conte, also known as Johannes Franciscus Le Conte, is still a largely unknown figure,

¹⁴⁸ Schmidt-Biggemann, *Geschichte der christlichen Kabbala*, III, p.8.

¹⁴⁹ *Répertoire bibliographique des livres imprimés*, XXV, p. 207 (on Jean-Antoine II Huguétan); and XVIII, p. 66 (on Guillaume Barbier).

¹⁵⁰ *Ibid.*, XXII, p. 244; XVIII, p. 66.

¹⁵¹ *Ibid.*, XVIII, pp. 207-29.

¹⁵² Jan Baptista van Helmont, *Les oeuvres de Jean Baptiste van Helmont, traitant des principes de médecine et physique, pour la guérison assurée des maladies*, tr. by Jean le Conte, Lyon 1670.

although he published two more books on iatrochemical subjects in 1680 and 1690.¹⁵³ His publication of Van Helmont's works can best be described as an extract in French rather than an actual translation.¹⁵⁴ In the introduction, he explained that he left out the parts which he thought were less useful, in order not to bore the reader.¹⁵⁵ He also included a list of chapters he was translating.¹⁵⁶ Like Lautier in his *Apologia* in 1655, he wished to promote Helmontian ideas and theories, against the traditional medicine taught at most universities.¹⁵⁷ The publishers in Lyon, although not directly related to any academic environment, were nonetheless involved in the publication of scientific and medical texts, such as the *Opera omnia* (Lyon 1663) of Girolamo Cardano (1501-1576), and the *Opera omnia* (Lyon 1666) of Daniel Sennert (1572-1637).¹⁵⁸ In other words, the rich publisher Huguétan had a taste for publishing the *opera* of foreign doctors.¹⁵⁹ In collaboration with Barbier he therefore also invested in the publication of the editions of Van Helmont's *Ortus medicinae*, as well as the abbreviated French translation produced by Jean Le Conte.

The English years and connections: unpublished translations by Daniel Foote

After the tumultuous 1660s, during which time Francis Mercury was first arrested and then travelled extensively following his release, the 1670s turned out to be calmer. He went to England in 1670, once again on a mission for a member of the Palatine family, in this case Elizabeth, Princess-Abbess of Herford, who sent Francis Mercury to demand the pension she had been promised by the English government. He met Elizabeth's brother Rupert and her cousin, King Charles II of England. As always he enjoyed the company of the highest circles.

¹⁵³ Jean Le Conte, *Clavis Hermetica, seu metallorum mineraliumque legitima solutio*, Lyon 1680 (also published by Huguétan); id., *Opuscula nova medica*, Frankfurt and Leipzig 1690. References to Le Conte are scarce; see Debus, *The French Paracelsians*, pp. 117-18; James Riddick Partington, *A History of Chemistry*, London and New York 1961, p. 240.

¹⁵⁴ Debus mentions another translation in *The French Paracelsians* (p. 118), *Avis de Van-Helmont, sur la composition des remedes*, by Jacques Massard, Grenoble 1679 and reprinted in Amsterdam in 1686. This is however no translation, but a commentary on Van Helmont's method of preparing drugs.

¹⁵⁵ Jean Le Conte, 'Preface necessaire pour bien comprendre cette Nouvelle Doctrine', in *Les oeuvres de J. B. van Helmont*, sig. E3^v: 'J'ay abregé cette traduction (en ometant ce qui m'a semblé le moins utile) le plus que J'ay pû pour ne pa ennuyer le Lecteur, et l'atirer insensiblement à la lecture de quantité d'autres choses curieuses et inouyes qu'il pourra voir dans l'Auteur, avec les histoires, et le mecaniques don't il se sert pour preuve de ses expositions comme les Traitez.'

¹⁵⁶ Ibid, sig. E3^v: 'De tempore; Vita longa, Ars brevis; Mortis introitus in naturam humanam; Decus virginum; De spadanis fontibus; Supplementum paradoxum numero criticum; Intellectus Adamicus; Imago Dei; Externorum proprietates; Humidum radicale; Aura vitalis; Vita multiplex in homine; Fluxus ad generationem; Lunare tributum; Vita; Vita brevis; Vita aeterna; Mortus occasiones; De Magnetica vulnerum curatione; In sole tabernaculum; Infantis nutritio ad vitam longam; Arcana Paracelsi; Mors Domini; Arbor vitae; et Tumulis pestis.'

¹⁵⁷ About the debate between the conservative medical faculty in Paris and the new philosophy, see Debus, *The French Paracelsians*, pp. 46-101; and Brockliss and Jones, *The Medical World of Early Modern France*, pp. 85-169.

¹⁵⁸ Daniel Sennert, *Opera omnia*, 5 vols, Lyon 1666; Girolamo Cardano, *Opera omnia*, 10 vols, Lyon 1663.

¹⁵⁹ See Ian Maclean, *Learning and the Market Place*, Ch. 7 ('Cardano and his Publishers'), Leiden 2009, p. 153.

On his friend Christian Knorr von Rosenroth's behalf, but also because of his own interest, he was keen to meet Henry More (1614-1687), philosopher and 'Cambridge Platonist', whose works the two friends had read in Germany and who would become an important correspondent in the process of publishing Knorr's *Kabbala denudata* between 1677 and 1684.¹⁶⁰ In order to wait for Francis Mercury, who was bringing letters for him from Germany, More, postponed his trip to Ragley to visit his pupil and friend Anne Conway. On the following day, the 13th of October 1670, More wrote to Anne about the encounter which took place during a dinner in More's chamber in Cambridge. Probably because More had asked Francis Mercury for advice on how to treat Conway's headaches, the letter contains detailed information about the dinner guest.¹⁶¹ We learn that Francis Mercury was only planning on staying in England for about a month in order to complete his duties for the Palatine family, and that 'he can speake French and Italian, but Latin very brokenly', but could best express himself in Dutch, which was then translated by his interpreter. Most interestingly, More included the passage about Francis Mercury's profession and income mentioned above: 'He does not profess Physick, but lives on his own earnings'. This confirms that Francis Mercury was earning money from his services to various noble families and perhaps also from the publication of his father's works.

More spoke enthusiastically about Anne Conway, and must have convinced Francis Mercury to visit her in Ragley, even though this was a major trip away from London, where he was based. Eventually, this visit would lead to a detour in Francis Mercury's travel plans, which were extended from one month to several years. He visited Anne briefly at the end of 1670, and, after some travels to Germany, he returned to Ragley and remained there until Anne's death in 1679. In October 1670, he already reported back to Knorr von Rosenroth in Dutch and extended the greetings from Dr More, who had written an answer in response to a letter from Knorr he had received through Francis Mercury. The latter added that More turned out to be a good man.¹⁶² The years in Ragley, which were only interrupted by occasional trips to Germany, had a strong influence on Francis Mercury. Although this is not the place to go into details about this part of his life, it is necessary to mention that it was in 1676, during his stay at Ragley, that he and later

¹⁶⁰ Christian Knorr von Rosenroth, *Kabbala denudata seu doctrina Hebraeorum transcendentalis et metaphysica atque theologica*, 2 vols, Frankfurt and Sulzbach, 1677-84. On this extensive and singular publication on Christian Kabbalah, see Schmidt-Biggemann, *Geschichte der christlichen Kabbala*, III, Chapters 3 ('Christian Knorr von Rosenroth: *Kabbala Denudata*') and 4 ('Die Auseinandersetzung zwischen Knorr und More über den Sinn der christlichen Kabbala').

¹⁶¹ *Conway Letters*, p. 323.

¹⁶² Francis Mercury van Helmont to Knorr von Rosenroth, London, 27 October 1670, in Herzog August Bibliothek, Wolfenbüttel, Cod. Guelf. 30.9 Extrav., f. 49r: 'H. Doctor Mor doet *Uwe Edele* seer groeten ende heeft my ene andtwoort geschieckt hy en gebruyckt geene boecken syne andtwoort sal syn opdat het originael niet mocht verloren gaen dan ick het selver meyne mede te brengen. allen de boecken die UE begeert heeft brenge ick mede ende noch wel 10 mael meer, aen de correspondens van Mr. Moer en sult niet twyfelen hy is eenen goeden man ende mynen vrintd ick sal UE oock syn conterfeytsel schicken op papier int kleyn.'

Anne Conway converted to Quakerism.¹⁶³ It would not only define the way he would dress (‘in a suit of brown cloth of the kind worn by the Quakers’) for the rest of his life, it would also make apparent how much value he gave to the teaching of Kabbalah. His ideas about Kabbalah would eventually give rise to bitter controversies between him and the Quakers, which led to his departure from the Society.¹⁶⁴

After his long stay at Ragley and after Anne’s death in 1679, the now 65-year-old Francis Mercury returned to the continent. Nevertheless, from 1681 onwards he could be found in England again, where he probably stayed for another four years. In this period he would make use of the services of Daniel Foote. This almost entirely unknown physician will be the main focus of the rest of this section, since he not only assisted Francis Mercury as an amanuensis, but also left unpublished translations of several of Jan Baptista Van Helmont’s treatises and chapters, and, what is more, Francis Mercury’s *Memoirs*.

Allison Coudert mentions Foote ‘as one of [Francis Mercury] van Helmont’s many amanuenses’.¹⁶⁵ From comments by Leibniz we know that Francis Mercury did not like to write himself and would usually dictate or even just talk with colleagues and assistants, who would then write down his ideas.¹⁶⁶ Some of the notes taken by Foote on conversations between him and Francis Mercury survive in the British Library. These notes are now bound in four different manuscripts in the Sloane collection in the British Library.¹⁶⁷ Foote translated two complete treatises from the *Opuscula medica*, ‘De lithiasi’ and ‘De febribus’ (on the stone and on fevers), and several chapters from the *Ortus medicinae*, such as ‘Venatio scientiarum’ as ‘The indagation of Knowledge’; ‘Logica inutilis’ as ‘Logicke is useless’; and ‘Imago fermenti impraegnata massam semine’ as ‘The image or likeness of a ferment stamped upon a corporeal image, impregnated it with a seed’.¹⁶⁸ A textual analysis between these translations and the translations made by Walter Charleton and John Chandler will follow in the next chapters. Foote also started to translate the *Dageraed* into English, although he stopped in the middle of the first chapter.¹⁶⁹

His diligence in studying Van Helmont is apparent not only from the translations he made, but also and even more so from the two manuscripts that contain indexes of Van Helmont’s

¹⁶³ Coudert, *Impact of the Kabbalah*, pp. 210-19.

¹⁶⁴ On this dispute, see Coudert, *Impact of the Kabbalah*, Ch. 11 (‘The Quakers’ Rejection of the Kabbala’), pp. 241-70; and Coudert, ‘A Quaker-Kabbalist Controversy: George Fox’s Reaction to Francis Mercury van Helmont’, in *Journal of the Warburg and Courtauld Institutes* XXXIX (1976), pp. 171–89.

¹⁶⁵ Coudert, *Impact of the Kabbalah*, p. 171.

¹⁶⁶ *Ibid.*, pp. 60-1.

¹⁶⁷ BL, Sloane MSS 617, 629, 630 and 632. Francis Mercury’s *Memoires* and *Observationes* are kept in BL, Sloane MS 530.

¹⁶⁸ The translations by Foote from the *Ortus medicinae* mentioned here, were hitherto not recognised as Van Helmont’s texts. See BL, MS Sloane 629, ff. 199-217, and my article ‘Daniel Foote als Übersetzer im Kontext von Vater und Sohn Van Helmont’, *Morgen-Glantz* XXIII (2013), pp. 169-84.

¹⁶⁹ The Dutch translations can be found in BL, Sloane MS 632.

works.¹⁷⁰ Both indexes are copied from the printed version by Otto Tachenius for the second edition of the *Ortus medicinae*. Foote's index in MS Sloane 633, however, is 'adjusted' (*adaptatus*). Foote compiled and added indices with names of people, and also two impressive indices of biblical quotations used by Van Helmont in his work. Both are ordered following the structure of the Bible. Under the heading of each biblical book, the first index gives the page numbers of Van Helmont's biblical loci. The second of these indices includes Van Helmont's quotations ordered according to the Bible with page references to the 1652 *Ortus medicinae*.¹⁷¹

Foote was born in 1629 in Cambridge and was admitted to Trinity College Cambridge in 1645. His tutor was a Mr Rowles, and Foote received his BA, MA and MD respectively in 1650, 1653 and 1664.¹⁷² From the diploma of his medical degree, which Foote copied into one of his notebooks, we know that he was given the degree 'summa cum laude' by Edward Montague (1602-1671), who at the time was the King's Magistrate and the Dean of the University of Cambridge.¹⁷³ The long period between Foote's M.A. and M.D. is unusual, but since he is mentioned as 'Vicar of Swaffham Bulbeck, Cambridgeshire', where he was installed in March 1652-3, only to be ejected because of Puritan beliefs in 1662 after the Restoration, one might hypothesize that he went back to Trinity College to start a new career in medicine. After his graduation, Foote eventually ended up in London, where, amongst other things, he worked for Francis Mercury.¹⁷⁴

The collection of manuscripts by and from Foote, which can currently be found in the British Library, consists of much more than the five manuscripts that are related to the Van Helmonts. His full collection, or at least what has survived of it, contains thirty-seven manuscripts, entirely

¹⁷⁰ BL, Sloane MSS 615 and 633.

¹⁷¹ BL, Sloane MS 615, ff. 151^v-154^v and 155^r-162^v.

¹⁷² W. W. Rouse Ball and J. A. Venn (eds), *Admissions to Trinity College, Cambridge*, 5 vols, London 1911-16, II, p. 384.

¹⁷³ BL, Sloane MS 625, f. 55r: 'Exemplar diplomatis seu Erratum testimonialium Academia Cantabrigiensis pro gradu Doctoratus medicinae, mihi concessarum. Edvardus Montague comes Mancestriae Vicecomes Mandevil, Baco de Kimbolton, hospitii regii Camerarius sacrae magistrati a consiliis, Periscelidis Georgianae eques auratus, et almae Universitatis Cantabrigiensis Cancellarius Magistri et Scholaris ejusdem, Omnibus Christi fidelibus presentes has *Litteras* inspecturis visuris, vel auditoris Salutem in *Domino* sempiternum: etsi *Venerabilis* et doctissimus Vir Daniel Foote propriis intritis suis inclarescat, ita ut noto testimonio parum egeat, nos tamen Cancellarius, *Magister* et Scholares ante dicti, quantum in nobis est meritissimum hunc virum hisce *nostris litteris* commendatum insuper et singulos esse volumus: Quem pro dignitate et meritis peractis publice *summa* cum laude et approbatione, omnibus exercitiis pro Statuta Academiae *nostrae* requisitis ad gradum Doctoratus Medicinae, quinto die mensis Julii Anno Domini millesimo sexcentesimo sexagesimo quarto admissimus et creavimus eidemque *omnes* et singulas dignitates, honores, insignia, jura, et privilegia, qua ad illum gradum, et ordinem spectant, concessimus: In cujus rei testimonium Sigillum Commune dictae Universitatis *nostrae* presentibus apponi curavimus Dat: Cantabr. in Senatu nostro duodecimo die mensis Junii Anno Domini millesimo sexcentesimo sexagesimo quinto. Sigillum Academiae hic appensum. Vera Copia Daniel Foote, Julii 27 1675.'

¹⁷⁴ A. G. Matthews, *Calamy Revised Being a Revision of Edmund Calamy's Account of the Ministers and Others Ejected and Silenced, 1660-2*, Oxford 1934, pp. 204, 398. Foote also renewed his friendship with the physician John Pratt, whom he knew from Trinity College in Cambridge. Pratt would donate his manuscripts and books to Foote after his death, which also are currently in the Sloane collection at the British Library.

or partly written by Foote. Many of these manuscripts were dated by Foote himself, and the collection gives historians a wonderful opportunity to look at manuscript notes made over a period of almost fifty years in a man's life. His career path as a man of the church and a physician, with a great interest in subjects of a spiritual character (he translated several works of Jacob Boehme) and alchemy, was unusual, but made him a very suitable candidate to be Francis Mercury's assistant. From his dated manuscript translations we can deduce that he was interested in Jan Baptista van Helmont's works long before Francis Mercury came to London in the 1670s.

Foote was well acquainted with many physicians, clergy and politicians. A few letters kept in the manuscript collection testify to a friendly relationship with Otto Tachenius, whom we have already encountered while discussing the second edition of the *Ortus medicinae*. Another Helmontian, Ludovico Conti from Macerata, Italy, author of a *Metallorum ac metallicorum recens elucidatio* published in 1665, also lived in Venice.¹⁷⁵ Of both authors we find translated works in Foote's manuscripts, together with an exchange of letters with Tachenius. Another extant letter from Foote is to Henry Oldenburg, which was later published in the *Philosophical Transactions* of the Royal Society.¹⁷⁶

In spite of being connected to a number of important and influential people, Foote never became a well-known man. Maybe this had to do with his modest background. He entered Trinity College as a sizar, a student who served the wealthier students. The many, extremely accurate copies of books Foote kept in his collection, which go back to the very beginning of his studies in 1645, probably form an indication that he could not afford to buy books, and therefore copied them out. Whether the translations were done with the same purpose of having his own copy, or whether it had any mnemonic goals, or whether he did it on request of someone else is hard to say. His handwriting, however, was well trained from the copying of books, probably one of the tasks he had undertaken in order to finance his studies.

While writing down the observations dictated by Francis Mercury, Foote gave a remarkable insight into the latter's personal appearance:

The Author is grown old and he delivers his thought in bad English whence no conciseness but repetition. He was much sollicitated by divers freinds to bring his philosophy out of his head into writinge, in generall for the benefit of mankind, and in speciall to deliver from vaine thoughts destructive practices those sorts of men called

¹⁷⁵ Clericuzio, 'From van Helmont to Boyle', p. 304.

¹⁷⁶ Daniel Foote to Henry Oldenburg, 11 October 1669, in *The Correspondence of Henry Oldenburg*, VI, pp. 275-9. Printed in *Philosophical Transactions* IV (17 October 1669), pp. 1050-55.

Alchemists. He therefore not being willinge to carry his knowledge with him to the grave, hath made this remonstrance to all men, but particularly to the chymists.¹⁷⁷

The first sentence seems to indicate that the two met before when Francis Mercury was younger. The observations and memoirs are dated 1682 by Foote himself, and the completion of the latter is more specifically recorded as occurring on the 9th of October 1682. We furthermore know that the two would keep meeting or corresponding until Francis Mercury's death in 1698. For instance, Foote is mentioned as a member of John Locke's 'Dry Club' in a letter from William Popple to Locke in November 1692.¹⁷⁸ This group of philosophers met regularly, following the example of a group meeting in Rotterdam in the Netherlands. Both John Locke and Francis Mercury were regular visitors to this group lead by Benjamin Furly while they all lived in the Netherlands in the mid-1680s. Daniel Foote is also mentioned in this context.¹⁷⁹ Furly, another Quaker, was a merchant originally from England, who had moved to the Netherlands at a young age.¹⁸⁰

After the death of Anne Conway, Francis Mercury left Ragley and, after a period in London, went back to the Netherlands. He stayed in both Amsterdam and Rotterdam as addresses on letters make clear. In 1682 he was back in London where he lived with Quaker friends. Due to his strong interest in Kaballah, Francis Mercury and his publications generated a controversy amongst the Quakers, which eventually made him withdraw from the Society of Friends. This happened either in or just after 1684,¹⁸¹ but it did not prevent him from continuing to gather with a rather wide circle of like-minded friends and acquaintances now mainly in Rotterdam. We have already met some of them in earlier stages of Francis Mercury's life, such as George Keith, Tobias Ludwig Kohlhans and Petrus Serrarius.¹⁸² The Glorious Revolution of 1688, in which the Dutch stadtholder William III of Orange successfully invaded England to become

¹⁷⁷ BL, Sloane MS 530, f. 71r.

¹⁷⁸ *The Correspondence of John Locke*, ed. by E. S. de Beer, 8 vols, Oxford 1976-1989, IV, p. 581. On the 'Dry Club', see L. Simonutti, 'Circles of *Virtuosi* and "Charity under Different Opinions": The Crucible of Locke's Last Writings', in *Studies on Locke: Sources, Contemporaries, and Legacy*, ed. S. Hutton and P. Schuurman, Dordrecht 2008, pp. 159-75 and C. Robbins, 'Absolute Liberty: The Life and Thought of William Popple, 1638-1708', *William and Mary Quarterly*, 3rd ser., XXIV (1967), pp. 190-223.

¹⁷⁹ Coudert, *Impact of the Kabbalah*, pp. 274-5.

¹⁸⁰ Sarah Hutton, *Benjamin Furly, 1646-1714: A Quaker Merchant and His Milieu*, Florence 2007, pp. 1-10. For publications and translations by Benjamin Furly see William I. Hull, *Benjamin Furly and Quakerism in Rotterdam*, Swarthmore, PA 1941, pp. 69-74.

¹⁸¹ Coudert, 'A Quaker-Kabbalist Controversy', pp. 171-89.

¹⁸² Tobias Ludwig Kohlhans (1624-1705) was one of Francis Mercury's longstanding friends, whom he had met decades ago in Germany. With the help of Francis Mercury he became the physician and private secretary of Count Christian August of Sulzbach. Kohlhans was originally from Gotha, and although he studied medicine in Heidelberg and Leiden, he would keep close contacts with the Duke of Gotha, as we can see from their correspondence on the matter of Francis Mercury's arrest and imprisonment in the early 1660s. See: Coudert, *Impact of the Kabbalah*, p. 35; Ana Maria Alfonso-Goldfarb, Márcia Helena Mendes Ferraz and Piyo M. Rattansi, 'Lost Royal Society Documents on 'Alkahest' (Universal Solvent) Rediscovered', *Notes and Records of the Royal Society* LCIV (2010), pp. 435-456.

the new King William III, made it possible for John Locke to return to England. He would host Francis Mercury in 1693 for five months, when the latter once more visited England.¹⁸³

While Francis Mercury was travelling between England and the Netherlands, several translations and another edition of the *Ortus medicinae* were published in Germany, to which we shall now return.

German translations of the *Ortus medicinae* and *Dageraed*. Francis Mercury's collaboration with Knorr von Rosenroth and the sixth edition of the *Ortus medicinae*

Francis Mercury's first important contacts after his father's death, were, as we have seen, with the Palatine Princes and Princesses who were residing in The Hague at the time.¹⁸⁴ He would remain in touch with Princess Sophia until the very end of his life, and the friendship was probably strengthened by the presence of a common friend, Gottfried Wilhelm Leibniz. Princess Sophia became Leibniz's patroness and corresponded extensively with both gentlemen on philosophical and theological issues.

Another major figure in Francis Mercury's career was Christian August, the Count-Palatine of Sulzbach whom he met in 1649 when on a political mission in the company of the Palatine Prince Charles Louis. As already said in a previous section of this chapter, when Christian August asked him to come to Sulzbach in order to advise him on intractable religious and political issues in his domains, the latter spent several years in Sulzbach, interrupted by several travels through Europe (Venice for example, but also many places in Germany). Christian August and Francis Mercury travelled together to the Netherlands in 1660 to look for ministers and preachers who could work in Sulzbach.¹⁸⁵ It was after this trip that Francis Mercury, as mentioned earlier, was arrested and imprisoned. After his release he immediately returned to Sulzbach.¹⁸⁶ It must have been soon after his return to Germany that Francis Mercury met Christian Knorr von Rosenroth (1636-1689), a Protestant scholar who would have a major influence on Francis Mercury with regard to the latter's own publications and to the German reception of Van Helmont.

Although Christian August can be seen as an example of a ruler who was also a scholar, with a broad interest and knowledge of many languages (including Hebrew) as well as natural philosophy and alchemy, it seems that Christian Knorr von Rosenroth was the person who

¹⁸³ On John Locke and his relation to Francis Mercury, see Coudert, *Impact of the Kabbalah*, Ch. 12 ('John Locke, Benjamin Furly, and the Kabbalah'); and Stuart Brown, 'Heretics of the Lanterne': Furly and van Helmont from the standpoint of Locke', in Hutton, *Benjamin Furly*, pp. 67-85.

¹⁸⁴ See above, p. 116.

¹⁸⁵ Wappmann, *Durchbruch zur Toleranz*, pp. 168-71.

¹⁸⁶ Coudert, *Impact of the Kabbalah*, pp. 55-6.

pushed Francis Mercury to publish his own works.¹⁸⁷ Knorr von Rosenroth entered Christian August's service in 1667 on Francis Mercury's recommendation. The two had met in the Netherlands, in the time after Francis Mercury's imprisonment and during Knorr's European travels between 1663 and 1666.¹⁸⁸ Knorr lived in the Netherlands for a few years, becoming relatively fluent in Dutch. As we can see from the letters exchanged between the two, currently in the Herzog August Bibliothek in Wolfenbüttel, Francis Mercury and Knorr communicated partly in Dutch (also in Latin and German).¹⁸⁹ As we have seen with several other friends of Francis Mercury, such as LeBlon and Kohlhans, Knorr von Rosenroth became a member of the Sulzbach circle of Christian August. He entered his service as *HofCantzleyRat* and upon his death he held the office of *Canzlei-Director und Hofrat*. This means that, from being the fifth member on the Sulzbach Privy Council, he eventually rose to the position of its director.¹⁹⁰ His functions were broad and varied; he accompanied the Count on his official trips, was responsible for the archives of the county, for helping and supporting the count in his Hebrew and alchemical pursuits, but also for collecting taxes (*Lehenprobst*).¹⁹¹ Next to these and several more tasks, Christian August wrote poetry and several important scholarly works. His interest and that of the count himself in Hebrew and the Kaballah led not just to publications in this field, but to the foundation of a Hebrew printing press in Sulzbach.

Just before Knorr von Rosenroth arrived in Sulzbach, Christian August had persuaded a book publisher called Abraham Lichtenthaler (1621-1704) to establish his own printing press in this town. By a decree of the twelfth of May 1664, Lichtenthaler received permission to start his business. The new printer was of a Protestant background, and as the son of a reformed minister, he had a troublesome youth in an area of the country where Catholicism was the dominant religion. He eventually learnt the profession in Basel and ended up in Nuremberg in the publishing house of Wolfgang Endter the Younger, with whom he would maintain a working relationship for the rest of his life.¹⁹² According to Finke, no clear programme can be

¹⁸⁷ *Christian Knorr von Rosenroth: Dichter und Gelehrter am Sulzbacher Musenhof: Festschrift zur 300. Wiederkehr des Todestages*, Sulzbach-Rosenberg 1989, pp. 32-3. For biographical details see: Italo Michele Battafarano, 'Christian Knorr von Rosenroth: Glanz der barocken Ingeniums', *Morgen-Glantz* I, pp. 13-32; and Manfred Finke and Erni Handschur, 'Christian Knorrs von Rosenroth Lebenslauf aus dem Jahre 1718', *Morgen-Glantz* I, pp. 33-48. *Morgen-Glantz* is an annual publication from the Knorr-von-Rosenroth-Gesellschaft, and forms since 1990 the most important platform for studies on Sulzbach and Knorr von Rosenroth.

¹⁸⁸ See Manfred Finke and Erni Handschur, 'Christian Knorrs von Rosenroth Lebenslauf aus dem Jahre 1718', *Morgen-Glantz* I (1991), p. 37.

¹⁸⁹ Two Dutch letters from Francis Mercury to Knorr can be found in the Herzog August Bibliothek, Wolfenbüttel, Cod. Guelf. 30.9 Extrav., f. 49r-51v.

¹⁹⁰ Helmut W. Klinner, 'Christian Knorr von Rosenroth in der Pfalz-Sulzbachischen Kanzlei von 1668-1689', in *Christian Knorr von Rosenroth: Dichter und Gelehrter am Sulzbacher Musenhof: Festschrift zur 300. Wiederkehr des Todestages*, Sulzbach-Rosenberg 1989, pp. 35-40.

¹⁹¹ *Ibid.*

¹⁹² On the Abraham Lichtenthaler and the Hebrew printing press in Sulzbach, see Volker Wappmann, 'Sulzbach als Druckort im 17. Jahrhundert', *Morgen-Glantz* V (1995), pp. 175-95; Manfred Finke, 'Christian Augusts Bücherwelt', in *Christian Knorr von Rosenroth*, Sulzbach-Rosenberg 1989, pp. 52-66.

discerned in the almost hundred non-Hebrew books that were published at Lichtenthaler's press between 1665 and 1700, even though we might have expected this to be the case given the specific interest of the count and his advisors.¹⁹³ Soon after giving the permission to Lichtenthaler to start printing in Sulzbach, Christian August also allowed Jewish inhabitants of Sulzbach to print Hebrew books.¹⁹⁴ Although Lichtenthaler would print several works on the Hebrew language, books entirely in Hebrew would be mainly printed by the Hebrew printers.

Knorr von Rosenroth and Francis Mercury had several of their works printed by Lichtenthaler. The first one was the aforementioned first publication by Francis Mercury, *Alphabeti vere naturalis Hebraici*. Written during his imprisonment and printed in Sulzbach in 1667, it began with an introduction by Christian Knorr von Rosenroth.¹⁹⁵ The second notable publication by Lichtenthaler with regard to the Van Helmonts is the 1681 publication of *Tumulus pestis*. This German publication is a translation of the second part of the *Dageraed*, which is entirely devoted to the plague.¹⁹⁶ The translator, Johann Heinrich Seyfried (ca. 1640-1715), is a largely unknown person, who seems to have been a geographer, natural historian and civil servant on the basis of the various publications in his name.¹⁹⁷ From his publications we can also gather that he was active in Nuremberg, and from 1681 onwards also in Sulzbach.¹⁹⁸ From the involvement of Knorr von Rosenroth and Francis Mercury in the intellectual circle of Sulzbach, we can infer that they were aware of this translation of Van Helmont's work before it was printed. The translator refers to recent local outbreaks of the plague in the introduction, and the key to prevent this from happening again was to be found in the book.¹⁹⁹ The translator also explains that he uses the Dutch text as the basis of his translation, even though Van Helmont had printed a similar treatise in his Latin *Ortus medicinae* as well. The reason for using the Dutch text lay, according to Seyfried, in the non-existence of any other text ever printed with a similar content, which is in contradiction to the existence of Van Helmont's Latin version, which also gets quoted by Seyfried.²⁰⁰ This translation has been hitherto ignored by most scholars, an

¹⁹³ Finke, 'Christian Augusts Bücherwelt', p. 55.

¹⁹⁴ Marvin J. Heller, *The Seventeenth Century Hebrew Book: An Abridged Thesaurus*, 2 vols, Leiden 2011, I, p. xliv.

¹⁹⁵ The German translation was also published in the same year, as *Kurtzer Entwurff des Eigentlichen Natur-Alphabets der Heiligen Sprache. Nach dessen Anleitung man auch Taubgebohrne verstehend und redend machen kan*, Sulzbach 1667.

¹⁹⁶ Johannes Henricus Seyfried, *Tumulus Pestis; Das ist, gründlicher Ursprung der Pest dero Wesen Art und Eigenschafft*, Sulzbach 1681; J. B. van Helmont, *Dageraed*, pp. 267-404.

¹⁹⁷ The little information known about Seyfried is collected in the CERL Thesaurus, which includes his publications: <http://thesaurus.cerl.org/record/cnp00410930> (last visited 11-12-13).

¹⁹⁸ For his publications including publication details, see www.vd17.de (*Das Verzeichnis der im Deutschen Sprachraum erschienenen Drucke des 17. Jahrhunderts*).

¹⁹⁹ Heinrich Seyfried, 'Vorrede' in *Tumulus pestis*, sig.)(ii^v.

²⁰⁰ Ibid., sig.)(iii^v: 'Als ist gegenwärtiges Tractätlein von der Pest, Johannis Baptistae on Helmonts, Herrn zu Royenborg, Orschot und Pellines, etc welches Anfangs er in Nieder-Teutsch beschrieben; in folgenden Zeiten aber unter andern seinen gelehrten Schrifften, in Lateinischer Sprach vermehret, zum Druck befördert worden, aus gedachter Niederländischer Version ins Teutsch zu übersetzen erwehlet;

understandable state of affairs given the much larger German translation of the entire *Ortus medicinae* published in Sulzbach in 1683.²⁰¹ For an analysis of language it is, however, of great interest and will therefore be included in the next chapters as a point of comparison to Knorr von Rosenroth's translations.²⁰²

In 1682, however, the year in between the two German translations, the sixth edition of the *Ortus medicinae* was published in Frankfurt am Main. The publisher was Johann Just Erythropel, who had his office in Frankfurt at the time.²⁰³ The printer was Johann Philipp Andreae (1654-1722), who was also involved in the printing process of the *Kabbala denudata*, another collaborative project between Francis Mercury and Knorr von Rosenroth, which was published in two parts in 1677 and 1684. According to several letters sent to Leibniz in the second half of 1681, Francis Mercury and his friend Kohlhans stayed in Frankfurt for several weeks.²⁰⁴ Although the letters do not speak about the sixth edition of the *Ortus medicinae*, it seems self-evident that Francis Mercury was involved in the printing process of this edition as well on the basis of his presence in the town of publication and his contacts with the printers. It is not clear whether he actually paid for the printing, but interestingly, there are sources that show that Francis Mercury, Christian August and Knorr von Rosenroth funded the publication of the *Kabbala denudata* together. This self-funded project suggests that Francis Mercury had money to spend. And what is more, while Christian August donated the profit of the publication to the poor in Sulzbach, Francis Mercury gave his part to Knorr. Another reason to believe, firstly, that actual profits could be made from book printing, and, secondly, that Francis Mercury did not need such income (anymore) to live.²⁰⁵

A question we might ask is whether the collaboration on the *Aufgang der Artzney-Kunst* also had financial motives. On the title page of the 1683 publication of this first complete German translation we read that the original text written by Jan Baptista van Helmont is 'now translated into High-German, with the help of his son, Francis Mercury Baron van Helmont, and put in its

und zwar hauptsächlich darum, weil es mit keinem andern, so bishero dem Druck untergeben, etwas gemein.'

²⁰¹ Pagel mentions the translation in his bibliography of Van Helmont's works, but does not discuss the work any further (Pagel, *Van Helmont*, p. 212-13).

²⁰² The translation by Seyfrid contains the entire text of the Dutch *Dageraad*, including the parts were not in the *Ortus medicinae*, which confirms that Seyfrid was using the Dutch text. And although Knorr von Rosenroth employed the Latin text as his basis for his translation published two years later, he included the parts left out in the *Ortus*. Nevertheless, he made his own translations without relying on Seyfrid's text.

²⁰³ Erythropel held later also offices in Copenhagen and Hamburg, see CERL Thesaurus: <http://thesaurus.cerl.org/record/cni00034777> (last visited 15-12-13).

²⁰⁴ Gottfried Wilhelm Leibniz, *Sämtliche Schriften und Briefe*, Darmstadt, Berlin 1923- ongoing, 3rd series, vol. 3, p. 502: Sebastian Scheffer to Leibniz, 30 September 1681: 'Helmont ist hier neben mir logirt'.

²⁰⁵ Manfred Finke and Erni Handschur, 'Christian Knorr's von Rosenroth Lebenslauf aus dem Jahre 1718', in *Morgen-Glantz* I (1991), p. 44: 'Die Druckkosten dieses Werkes [i.e. *Kabbala denudata*] wurden zwischen dem Durchlauchtigsten Herzog, HELMONT und Knorr aufgeteilt. Der Durchlauchtigste Herzog verfügte dann, daß sein Anteil [der Verkaufseinnahmen] zur Unterstützung armen Mädchen verwendet werden solle; HELMONT dagegen schenkte seinen Anteil großzügig dem Knorr.'

correct order, with additions of those parts which were different or added in the first edition published in Dutch and called the Daybreak'.²⁰⁶ It is very hard to trace the advice Francis Mercury gave to Knorr von Rosenroth, apart from the direct suggestions Knorr mentions in his introduction. Here we read that Francis Mercury did not want to have his own introduction to the reader translated and published in the *Aufgang*, since he saw it as a work from his youth which did not need to be reprinted.²⁰⁷ Knorr also mentioned the slightly disorganised way in which the *Ortus medicinae* had been published, for which he blamed the plundering of the Van Helmont estate in the late 1640s. Knorr's aim was finally to publish Jan Baptista Van Helmont's works, organised according to the way the latter had wished, and for guidance he looked in part to *Dageraad*.²⁰⁸ He argued, furthermore, that the translation process of this German edition was Francis Mercury's first chance to improve the order of the works since the first edition. As a reason, he claimed that Francis Mercury had previously never had the opportunity to be in the same place as the publisher of a new edition.²⁰⁹ From the information we have gathered in this chapter, we can only conclude that Knorr's statements were not entirely accurate. Francis Mercury had been in several of the cities (Amsterdam, Venice, Frankfurt) where the *Ortus* had been published at the time of publication, and on all these occasions he had actively collaborated with the printers. The fact that Knorr gives another version of the history is strange, to say the least, but might just be a way to convince the reader that this is the first edition-translation of the *Ortus medicinae* published under the attentive eye of the author's son. Admittedly, this is the only edition and translation which mentions Francis Mercury's help (*Beyraht*) on the title-page of the book in contrast to the acknowledgement of his contribution as the author of the introduction. What is more, Knorr and Francis Mercury worked together on several occasions, and Francis Mercury was in Sulzbach regularly. From the correspondence left by Knorr von Rosenroth, it becomes nevertheless clear that Francis Mercury was mainly acting as an intermediary and a messenger. He travelled between Germany and England (most of the

²⁰⁶ J. B. van Helmont, *Aufgang der Artzney-Kunst*, tr. by Christian Knorr von Rosenroth, Sulzbach 1683, frontispiece: 'Anitzo auf Beyrahten dessen Herrn Sohnes Herrn H. Francisci Mercurii Freyherrn von Helmont in die Hochteutsche Sprache übersetzt in seine rechte Ordnung gebracht mit Beyfügung dessen was in der Ersten auf Niederländisch gedruckten Edition genant Die Morgen-Röhte, mehr oder auch anders als in der Lateinischen [...] dem geschriebenen vermehret.'

²⁰⁷ J. B. van Helmont, *Aufgang*, tr. by Knorr von Rosenroth, sig.)(iii^r: 'Ich hätte mich nicht unterstanden die andere Vorrede, so der Jüngere Herr von Helmont undter seinem Namen vor das Werck seines Herrn Vaters setzen lassen, zu übergehen, wenn nicht Er selber mehrmals an mich begehret, ich solte bey dieser Übersetzung nicht nur solche aussenlassen, sondern auch von seinetwegen den Leser ausdrücklich erinnern, daß er solche hiemit retractiret, und als ein in seiner Jugend zusammengefasstes Wesen, vo so viel als nicht geschrieben gehalten haben wolte.'

²⁰⁸ Id., *Aufgang*, sig.)(iii^v.

²⁰⁹ Id., *Aufgang*, sig.)(iii^v: 'Und weil er diese gantze Zeit hero nie wieder Gelegenheit gehabt an denen Orten zu seyn, wo diese Wercke aufs neu getruckt werden.'

time via the Netherlands), and brought letters from and to Knorr, as can be seen from the letter from George Keith dated the 17th of November 1677.²¹⁰

As early as 1671 (Francis Mercury had moved to England by that time), the two friends were discussing the purchase of transcripts of Kabbalistic texts written by Isaac Luria (1534-72). Francis Mercury pushed for a low price to pay to the Jewish merchants in Venice – his general tendency when buying for Knorr on his trips through England and the Netherlands.²¹¹ Knorr on the other hand, wrote detailed responses to Van Helmont and discussed other works and letters within his own correspondence. What is remarkable is the structured way in which he organised his letters. He went through the arguments point by point.²¹² Despite the fact that Francis Mercury's strength seems to have been in talking and discussing rather than writing, which would suggest that his visits were more important than his letters, it seems likely on the basis of these correspondences and the various comments on Francis Mercury's language skills that it was mainly Knorr von Rosenroth who translated Van Helmont's *Ortus medicinae* into German, just as he translated so many other works.²¹³ The help given to Knorr came undoubtedly in the form of discussions, and probably also in monetary form.

The publisher of the *Aufgang der Artzney-Kunst* was an old acquaintance of Christian August and the old master of Abraham Lichtenthaler.²¹⁴ The Endters were a family of publishers in Nuremberg. The brothers Wolfgang (1622-1655) and Johann Andreas (1625-1670) carried on the business of their father and grandfather and the tradition would in turn be continued by their sons. Wolfgang Moritz (1653-1723) and the sons of Johann Andreas, all cousins, would publish together until 1682, after which Wolfgang Moritz withdrew from the business. Therefore, in the case of Knorr's *Aufgang*, it was the publishing house of the sons of Johann Andreas which took care of the publication. The Endters worked regularly with printers in Sulzbach. Lichtenthaler might seem to be the obvious first choice in Sulzbach, but the *Aufgang*

²¹⁰ HAB Cod. Guelf. 30.4 Extrav., Wolfenbüttel, f. 16r: 'Epistolae tuae (dilecte Knorri) ad amicum nostrum Fr. M. van Helmont transmissae'; and f. 18r: 'Vale vir a me multum dilecte, et libertatem meam ita ad te scribendi, ut in bonam partem accipias rogo, etiamque ut ad me paucis lineis per Helmontium rescribas.'

²¹¹ HAB Cod. Guelf. 30.4 Extrav., Wolfenbüttel, ff. 50^v-51^r: 'dat alsdan UE met hem tracteerden soo goeden koop als het mogelyck waer in te sien oft men in stat van 70 guldens met 50 hem konden tevreden [st]ellen ende soo niet konden UE hem de 70 guldens geven doch op dee conditie als volgt [...].' Francis Mercury writes in Dutch to Knorr, whereas Knorr writes both in German and Latin to Francis Mercury.

²¹² Knorr does this in 1687 in his correspondence with Johann Christoph Wagenseil (1633-1705), a German Hebraist who asked Knorr for advice on a Hebrew inscription (see HAB Cod. Guelf. 30.4 Extrav., Wolfenbüttel, ff. 1^r-6^r), his letters to William Brouncker of 1671/2 and in his correspondence with Francis Mercury, while discussing parts of the printing process of the *Kabbala denudata*. For a detailed description of the correspondence kept in the Herzog August Bibliothek, see Friedhelm Kemp, 'Christian Knorr von Rosenroth: Sein Leben, seine Schriften, Briefe und Übersetzungen', in Jan Baptista van Helmont, *Aufgang der Artzney-Kunst*. Facsimile edition of the 1683 edition, with contribution by Walter Pagel and Friedhelm Kemp, Munich 1971, pp. xxvi-xxix.

²¹³ On Francis Mercury's language skills, see previously quoted passages from Henry More and Daniel Foote. See p. 134, fn. 161 for More; and p. 138, fn. 177 for Foote.

²¹⁴ Wappmann, 'Sulzbach als Druckort im 17. Jahrhundert', *Morgen-Blantz* V (1995), p. 182.

was actually printed by Johann Holst, who first worked for Lichtenthaler, but started his own printing press in the early 1680s, with the *Aufgang* as his first order.²¹⁵ The surviving contract between Knorr von Rosenroth and the Endter cousins was signed on the 13th of February 1680, showing that Knorr took the lead in the translation and he was working on a full translation at the time of publication of the *Tumulus pestis* in 1681.²¹⁶ A printer was not yet mentioned at that stage.

The translation of Van Helmont's *Ortus medicinae* did not represent the first stage of Van Helmont's reception in Germany. When compared to England and France, where, in the first case, several translations appeared soon after Van Helmont's works were published; and in France where two of the editions and a French excerpt were published, the printed reception in Germany is late, occurring more than thirty years after the publication of the *Ortus medicinae*. As is discussed above on the section on the first Amsterdam edition of the *Ortus medicinae*, a large amount of the correspondence in the Hartlib circle, containing information about Van Helmont and the publication of his works, came to Hartlib via German colleagues. Also, German printers were responsible for the printing of the *Opuscula medica inaudita* and the *Ortus medicinae*. And, of course, there was a general reception of Van Helmont through Francis Mercury and his many services to German princes and princesses. A recent article by Sabine Schlegelmilch shows that also German physicians were reading, annotating, and discussing Van Helmont immediately after the publication of the *Opuscula medica inaudita* and the *Ortus medicinae*.²¹⁷ Clearly, a translation was not seen as an immediate necessity.

Epilogue: A last edition of the *Ortus medicinae*

In the years after Knorr's translation, Van Helmont's works remained very popular throughout Europe. Francis Mercury stayed for a few years in the Netherlands where he met John Locke as mentioned above. It is possible that Francis Mercury also met Michael Bernhard Valentini (1657-1729) while they were both in the Netherlands. The young Valentini had just finished his

²¹⁵ Ibid., p. 182, fn. 37.

²¹⁶ Lore Sporhan-Krempel, 'Buchdruck und Buchhandel in Nürnberg im 17. Jahrhundert', in *Bücher und Bibliotheken im 17. Jahrhundert in Deutschland*, ed. Paul Raabe, pp. 32-3: 'Rosenroth erbot sich "die lateinischen opera weil. Johann Baptista Helmontii, genannt Ortus Medizinae etc. in die hochdeutsche sprach zu übersetzen und dasjenige, was in der niederländischen sprach herausgegangen und im lateinischen noch nicht erhalten, gehöriger orten mit hineinzufügen, auch die schweren wörter mit deutlichen anmerkungen zu erläutern, und überall, wo es von nöten, den schlüssel mit anzuhenken, in summa, solch opera dergestalt im teutschen auszufertigen, dass sie jedermann mit nutzen lesen und verstehen können.'" The contract gives also details about the letter type that should be used by the printer and the advance payment made by Knorr (twelve *Reichstaler* and the Lyon edition of the *Ortus medicinae*).

²¹⁷ Sabine Schlegelmilch, "'Hier sing Chymica, hier sind Chymica!' – Die frühe Rezeption von Johann Baptist van Helmonts "Ortus medicinae" (1648) in Berliner Ärztekreisen', *Morgen-Blatz* XIII (2013), pp. 184-208.

medical degree in Giessen in Germany, and made a tour through France, the Netherlands and England in the year 1686. In the subsequent year, he took up a professorship in Medicine in his home and university town. He would become a prolific author, mainly in the field of medicine. In particular, his large collection of *materia medica* and his publications on the topic in his *Museum museorum* became famous.²¹⁸ It was this man, a member of the Royal Prussian Academy of Sciences since 1705 and a member of the Royal Society in London since 1715, who would publish the seventh and last edition of Van Helmont's *Ortus medicinae* under the title *Opera omnia* in 1707. He wrote in his introduction that the printer-bookseller Hieronymus Christian Paulli was asked to edit the previous edition and improve the index and key to important terms.²¹⁹ The title page mentions 'ex bibliopolio Hafniensi' (available from the bookseller in Copenhagen), where Paulli seems to have had his office.²²⁰ Nevertheless, the introduction to this edition, and most current day catalogues, place Paulli in Frankfurt instead of Copenhagen.

Francis Mercury kept travelling between Germany and the Netherlands until the very end of his life.²²¹ Knorr von Rosenroth died in 1689, three years after Leibniz visited him in Sulzbach to discuss the Kabbalah.²²² Leibniz and Francis Mercury would also stay in touch after the death of Knorr; Francis Mercury visited Leibniz several times, and they spent two months together in Hanover in 1694. Francis Mercury continued talking and dictating his thoughts to his friends instead of writing them down. It was Leibniz who in this way 'wrote' Francis Mercury's last book, although it also included some of Leibniz's own thoughts.²²³ Francis Mercury died eventually in 1698 in the house of a relative of his, his niece Isabelle von Motzfeld, the daughter of his sister Olympia-Clara. Isabelle sent the unfortunate news to Leibniz and asked him to write an epitaph, which he did.²²⁴ The close relationship between the two men does not exclude the possibility that it was Leibniz who prompted Valentini, the prolific physician and member of

²¹⁸ Ulrike Enke, 'Gelehrtenleben im Späten 17. Jahrhundert - Eine Annäherung an Den Gießender Medizinprofessor Michael Bernhard Valentini (1657-1729)', *Medizinhistorisches Journal* XLII (2007), pp. 299–329: and Bibliographical record database of Royal Society: <http://royalsociety.org/library/collections/biographical-records/> (last visited 24-12-13).

²¹⁹ Michael Bernhard Valentini, 'Introductio', in J. B. van Helmont, *Ortus medicinae*, sig. A3v: 'Non potui on a Dn. Hieronymo Christiano Paullini, Bibliopola de Republica Literaria optime merito, rogatus, ultimam Editionem Francofurtensem, reliquis emendatiorem, de novo perlustrare, a relictis inibi sphalmatibus curatius depurar, et praemissi Clavi ad extricandum difficiliorum sensum apta, publici juris facere, certa spe detentus, fore, ut, quotquot studio Medico bene cupiunt, laborem hunc aequi bonique consulturi, et si quid rectius noverint, benevole mecum communicaturi sint.'

²²⁰ Elita Grosmane, 'Emblematics and the Phenomenon of Emblematics in the Art of Seventeenth- and Eighteenth-Century Latvia', in *The Emblem in Scandinavia and the Baltic*, ed. by Simon McKeown and Mara R. Wade, Glasgow 2006, p. 50.

²²¹ Jaitner, 'Der Pfalz-Sulzbacher Hof', pp. 385-90.

²²² Coudert, *The Impact of the Kabbalah*, p. 310.

²²³ *Ibid.*, p. 312.

²²⁴ See Coudert, *The Impact of the Kabbalah*, p. xiii. See also Jacobus Burckhard, *Historia Bibliothecae Augustae quae Wolfenbuttel est*, 3 vols, Leipzig 1744-46, vol. 3, p. 326: Burckhard copies from one of Leibniz's letters dated on the 27th of December 1698: 'Il faut malgré moy, que je vous mande la mort de Mons. Helmont. Mad. la Baronne de Merode, sa Cousine, me demande unde Epitaph pour luy. Voicy ce que j'ay fait la dessus.' The epitaph is included at the beginning of this chapter.

the Royal Prussian Academy of Sciences, of which Leibniz was one of the founding presidents, to publish another edition of Van Helmont's work.

With the end of Francis Mercury's life and the last edition of his father's posthumously published works, this long chapter is coming to a close. Francis Mercury's role in the publications of the seven editions of Jan Baptista's *Ortus medicinae* (or *Opera omnia*) went far beyond the first Amsterdam edition, which introduced the reader to Francis Mercury as the obedient son, ready to fulfil his dying father's wish. His involvement in the publishing processes, his presence in the cities where his father's works were printed, and his contacts with the printers and publishers demonstrate that there was more to Francis Mercury than an obedient son. The same can be said about the translations made of Van Helmont's works, first in England in various forms, and later in Germany. His impact, whether directly in person or indirectly via letters, must have been substantial if we consider that John Chandler, Daniel Foote, Johannes Seyfrid, and Christian Knorr von Rosenroth all translated texts of Jan Baptista van Helmont after their encounters with Francis Mercury.

Jan Baptista van Helmont had many followers and a wide readership already during his life. And many of those readers and followers were keenly awaiting the publication of his unpublished works, as we have seen, for example, from Hartlib's correspondence. The unknown son was approached with some scepticism in Culpeper's letter of 1645 to Hartlib, in which the former stated that 'truly I cannot but conceiue it probable that Monsieur Helmonts sonne might (as acquaintance growes) be dealte with all for some of these secrettes'.²²⁵ These doubts about Francis Mercury seems to have receded over time, even though his skills as a physician failed to convince as many people as his father's theories did, as we have seen from the comments by Otto Tachenius, John Finch and Henry More. Nevertheless, he was able to effectively market his father's works.

Financially, he managed to survive the loss of his share in the inheritance of his father, partly because he transformed the heritage of his father, namely his works, into beneficial licenses to enter various courts. Whether the publications actually generated an income for him is unclear, but we can assume that he must have earned a living with his services to so many German noble families, especially those to the Palatine princes and princesses, and Christian August, Duke of Sulzbach. He left behind a fortune of more than 12,000 francs, which reveals him to be a wealthy man at the time of his death, even though he liked to present himself as a traveling hermit in the style of the Quakers, in a plain dark traveling coat.²²⁶

²²⁵ See above, p. 109, fn. 48.

²²⁶ For reference to money, see *Correspondence of John Locke*, ed. by De Beer, p. 6721. Leibniz' comments on Francis Mercury come out of letter to the Sophie, Electress of Hanover from September 1696, in Gottfried Wilhelm Leibniz, *Correspondance de Leibniz avec L'électrice Sophie de Brunswick-Lunebourg*, ed. by

The editions printed in Lyon and the French translations of Van Helmont's works had no direct connections to Francis Mercury, but rather to Jan Bapista, as we have seen in the translation made by Abraham Bauda. Furthermore, the Lyon editions of 1655 and 1667 make no references to the earlier editions of the *Ortus medicinae*, like all the other publishers do in their 'Prefaces to the Reader'. Despite the many connections between England and France, Francis Mercury was probably seen with less favour by the French court because of his many German relationships. Indeed, there is even no evidence that Francis Mercury ever visited France. The French editions on the other hand are used outside France, and it is indeed the Lyon edition which provided the basis for Knorr von Rosenroth's German translation, as is mentioned in the contract between the printers and Knorr.²²⁷

In summary, with this chapter I have tried to show that Francis Mercury van Helmont had a major influence on the publication of his father's works in different editions and on the appearance of translations of these works in various parts of Europe. The Van Helmont reception undoubtedly benefited from this wide-spread availability of copies and translations. Reciprocally, Francis Mercury was able to use the fame of his father to secure the publication of the latter's works in the first place and to link himself to the work by contributing the introductions. And where his father's fame provided him with medical credibility in the beginning, and thus opening the doors to various courts, his own reputation as a court advisor and the many contacts he made on that basis, must have made it easier to achieve the publication of later editions. All in all, Francis Mercury operated as the entrepreneur of his father's works, reaping the benefits for his path through life, while making a decisive contribution to the dissemination of his father's ideas.

Onno Klopp, 3 vols, Hanover 1874, vol. 2, p. 8: 'M. François Mercure Baron de Helmont [...] se fit ensuite Trembleur, et se disoit un chercheur dans le temps qu'il estoit à Hanover'.

²²⁷ See above, fn. 216.

CHAPTER 4: Views about Translation

After the discussion of Jan Baptista van Helmont's philosophy of language and his views about translation in the first chapter, of his practical use of language in the second chapter, and of the history of the many editions and translations of his works in the third chapter, it is time to turn to the translators. In the relatively short period of time between 1650 and 1683, at least eight different translations of Van Helmont's works were made. More specifically, we have eight translations into three different languages, produced by seven translators. Of the eight, seven appeared in print, one was left in manuscript form. The previous chapter has put the translators in their historical context, and revealed that all but the French translators were somehow connected to Francis Mercury van Helmont. In the next two chapters we shall look at their translations in some detail. This chapter discusses the way in which the translators dealt with theoretical and philosophical views about language and translation, with special reference to their version of Jan Baptista Van Helmont's *Ortus medicinae*. To this end, we shall look at the introductions written by the translators, to see what their purposes and aims were in writing their translations. Secondly, we shall look at the way in which they translated those specific sections in the *Ortus medicinae* and *Dageraed* that deal with Van Helmont's ideas on language, and, thirdly, we shall discuss translations of the treatise that Van Helmont devoted to the 'uselessness of logic'.

Introducing the Translations

The first translations of Van Helmont's work were made by Walter Charleton. As we have seen in the previous chapter, these translations of four of Van Helmont's treatises were published in 1650 as two short works. They both include letters of introduction, one as an 'Epistle of dedication' to William Brouncker, the second one to the reader. To Brouncker he writes that

again, my faith hath long swam smoothly downe the current of popular opinion, that Translation praesent the life of their Text, at as great disadvantage of Dissimilitude, as the backside of Hangings exhibit the story interwoven: and are at best, but slender Adumbrations, or pale Counterfeits of those more lively Images, drawne with more strength of Art, in the Primitive Phansy of their Protoplast.¹

According to Charleton translations are not commonly held in very high regard, as it is always a poor copy of the author's images and imagination. Only two years after the publication of Van Helmont's introduction to the *Ortus medicinae*, Charleton's words seem not only to refer to

¹ Walter Charleton, 'The Epistle Dedicatory', in Jan Baptista van Helmont, *A Ternary of Paradoxes*, tr. by Walter Charleton, London 1650, sig. B2^v.

common opinion, but also a direct response to Van Helmont. Even though translations represent inferior copies of the original, Charleton is eager to explain the value of the mother tongue – in his case of course English – as a worthy language for adapting this kind of texts. Its value, Charleton claimed, had previously been shown ‘by the skill and sweat of those two heroicall wits, the Lord St. Alban [i.e., Francis Bacon], and the now flourishing Dr. Browne [i.e. Thomas Browne]’.² ‘The Venerable, Majesty of our Mother ‘Tongue’, Charleton continues, ‘out of which I am ready to assert, may be spun as fine and fit a garment, for the most spruce Conceptions of the Minde to appeare in publick in, as out of any other in the World.’³ In the introduction to the reader, Charleton adds that ‘the fine and mysterious discourse, might not have suffered a grosse Eclipse, if drest in a meer-English veil’.⁴ And so, he spent ‘a few houres on the Translation, and marginal Paraphase of this piece of Helmont’, and ‘attempted to paint the beauty and life of Helmonts spruce Conceptions, in Colours most strong and natural’.⁵ Here we hear the translator speaking in order to make clear that the text is close to the original, as one would expect in an introduction to a translation. But in addition, Charleton includes arguments for the use of English and arguments to demonstrate that the English language possesses the dignity and scope appropriate for this material, very much in line with the arguments we saw in Chapter 1, as used by Dutch translators.⁶ In Charleton’s view, expressions invented by Francis Bacon and Thomas Browne ‘may well serve to stagger that Partiall Axiome of some Schoolemen, that the Latin is the most symphoniacall and Concordant Language of the Rationall Soule’.⁷ Charleton is trying to convince his readers that the latter is not the case any longer. ‘Whether it be a Crime in me to trace the footsteps of those Worthies, who have infinitely both enriched and ennobled our Language, by admitting and naturalizing thousands of forraigne Words, providently brought home from the Greek, Roman, Italian, and French Oratories’.⁸ Whether he thought it a crime or not, he did follow his great examples and further enriched his mother tongue with the vocabulary he used for his translation of Van Helmont’s texts. The idea of enriching his mother tongue with foreign words is exactly opposite to the movement among Dutch authors at the end of the sixteenth century, who aimed to root out all imported words from their language. By encouraging the inclusion of foreign terms into his language, Charleton possibly followed an approach more common to English authors than to other authors writing in their vernaculars. In the case of Van Helmont’s translations, Charleton

² Ibid., sig. B3^r.

³ Ibid., sig. B2^v-B3^r.

⁴ Walter Charleton, ‘To the Reader’, in Jan Baptista van Helmont, *Deliramenta catarrhi*, tr. by Walter Charleton, London 1650, sig. A3^r.

⁵ Ibid., sigs. A2^v, A3^v.

⁶ See Chapter 1, pp. 46-54.

⁷ Charleton, ‘The Epistle Dedicatory’, in *A Ternary of Paradoxes*, sig. B3^r.

⁸ Charleton, ‘To the Reader’, in *Deliramenta catarrhi*, sig. A3^r.

adds that he uses ‘Helmonts unfrequent, and new coyned, or new-applied Termes of Art’ in his translations in Latin, so that they can be understood.⁹

Like Van Helmont, Charleton, too, includes some preliminary views about knowledge in his introductions, albeit much shorter than the ones presented by Van Helmont. Charleton is responding to Van Helmont’s fierce criticism of the old-school medical theories and gives his reasons for the ‘indocibility’ (i.e., unteachableness) of new theories to those who previously learned the old doctrines ‘which instilled into our tender and unwary yeers, have grown up together with our understandings, and hold our credulities enslaved to an implicate conformity’.¹⁰ Charleton is introducing the idea that the opinions that people have developed on the basis of what they have learned or were taught are hard to change over time. To strengthen his arguments, he refers to the book *Human nature, or the Fundamental Elements of Policy* by Thomas Hobbes (1588-1679), which was published in London in the same year as Charleton’s translations of Van Helmont. Hobbes argues that the ‘cause of indocibility, is prejudice; and of prejudice, false opinion of our own knowledge’.¹¹ Charleton explains that ‘we judge of the truth or falshood not only of things subject to the apprehension of sence, but also of Philosophicall and Religious opinions’ and the strongest arguments cannot change the accustomed judgements.¹² The reason for this is that, according to Charleton, images and ideas are not blankly impressed on the ‘brain’, but are accompanied by ‘certaine notes or marks of rejection or approbation’. For Charleton this demonstrates the difficulty of adjusting one’s opinion, as a certain doctrine or opinion is stored in the mind as an image, and once this topic is discussed again, the image is recollected from memory with the accompanying ‘notes or marks’. And new doctrines or opinions are therefore, without further examination approved or rejected ‘according to the conformity or disproportion of those notes formerly registred’.¹³ Van Helmont was not so concerned with the philosophical implications of changing ideas and opinions. He was, however, all the more interested in the conception of new ideas and the perception of truth. A comparison between Charleton’s ideas and Van Helmont’s theory of knowledge demonstrates rather strikingly that Charleton departs from Van Helmont’s radical views on human reason, which, for the latter, was located in the animal soul. Charleton allows reason and human opinions to play a much larger role in perceiving and recollecting ideas than Van Helmont did in his view of knowledge.

⁹ Ibid., sig. [A4]^r.

¹⁰ Ibid., sig. a^r.

¹¹ Thomas Hobbes, *Human Nature or the Fundamental Elements of Policy; De Corpore Politico, or the Elements of Law*, ed. by G. A. J. Rogers, Bristol 1994, Ch. 10, § 8, p. 57. This was quoted literally by Charleton, in ‘To the Reader’, sig. a^r.

¹² Charleton, ‘To the Reader’, in *Deliramenta catarrhi*, sig. [a2]^r.

¹³ Ibid., sig. [a2]^{rv}.

Twelve years later, in 1662, the translation of the *Opuscula medica inaudita* and the *Ortus medicinae* by John Chandler was published in London. This first full translation of the two texts contains two introductions, the first one written by H. Blunden ‘To the English Reader’, and the second by the translator, ‘The Translator’s Premonition’.¹⁴ In his introduction, Blunden responds directly to Charleton’s introduction, in which the latter said he found Van Helmont’s ‘reason stronger at demolishing the Doctrines of the Ancient Pillars of our Art, then Erecting a more substantial and durable Structure of his own, his Witt more acute and active at Contradiction, then his judgement profound and authentick at Probation’.¹⁵ Blunden replies by noting that the fact ‘that Learned Helmont hath demolished the feeble Fabrick of an *erroneous* Method, is apparently true; not onely in it self, but confest, even by his adversaries’; as for the fact that ‘he hath not rebuilt a stronger Structure on a firmer Foundation, is as false’.¹⁶ Charleton’s translation is otherwise not named, but this stands as a clear reference. Chandler’s views, as he describes them in his introduction, are much more in agreement with Van Helmont’s ideas than Charleton’s, although he speaks much less about translation.

And as for the manner of rendring the sense of the Author, I have been careful and faithful according to my ability, to make him as plain to be understood by my Countrymen as the Work would even possibly bear; therefore have I not studied for abstruse words, or high flown language; For *Veritatis simplex oratio*; the speech of Truth is simple or plain; also that might have proved not a true genuine translation, but a subversion to the Readers apprehension: It is not Words but Things, not Name but Natures, not Resemblances but Realities, not Sublimities but Simplicities, that the Sons of Truth so seek after.¹⁷

Chandler opts here for the slightly apologetic approach, in which he presents his translation as plain and simple, and probably not always *verbatim*, such deviations from the original being necessary in rendering a comprehensible translation. Earlier in the introduction, however, he gives an explanation that echoes Van Helmont’s reasons for writing in the mother tongue. Chandler states that ‘neither was it translated into our Mother Tongue to any other end, than that naked and simple Uniform-Truth might appear’.¹⁸ The ‘naked truth’ is a recurring feature in Van Helmont himself, and was clearly picked up by his translators. Chandler elaborates on the fact (at least for him) that Van Helmont was an enlightened author, who wrote his works ‘with the Lamp or Candle of God being lighted in him (whereunto the Author bears his Testimony in

¹⁴ See the section on Blunden in Chapter 3, p. 130.

¹⁵ Charleton, ‘To the Reader’, in *Deliramenta catarrhi*, sig. [A4]^r.

¹⁶ H. Blunden, ‘To the English Reader’, in Van Helmont, *Oriatrike or, Physick Refined*, translated by John Chandler, London 1662, sig. A^v.

¹⁷ John Chandler, ‘The Translators Premonition’, in Van Helmont, *Oriatrike or, Physick Refined*, sig. a2^v.

¹⁸ *Ibid.*, sig. a^r.

opposition to blind Reason, in the Chapter of the searching or hunting out of Sciences)¹⁹. Chandler here is picking up on Van Helmont's own beliefs that knowledge comes from God, a view which connects to the dreams Van Helmont describes in his works. In one of those dreams, described in his chapter on the search for science ('Venatio scientiarum', 'The Hunting for Disciplines'), Van Helmont explains the revelation he had about the function of Reason, as discussed in Chapter 1.²⁰ It is striking to see the difference between Charleton's and Chandler's introduction; the former mainly responds to Van Helmont's own introduction in which he explained his ideas on language. Chandler by contrast comments much more on Van Helmont's book as a whole, and, more specifically, on the way Van Helmont mediated the truth to the readers, and on Van Helmont as a man, who 'by a Divine Gift from God, in the light of sound Judgement and true Understanding, out of love to his Neighbour, hath as a Modern, come after the Schools, Sons of Antiquity (as they would be accounted) and so searched them out in their principles, that being weighed in the Balance of true Science, they are found lighter than Vanity.'²¹ Chandler seems to profess an almost religious belief in Van Helmont and his works.

Daniel Foote, the third English translator, did not provide any introduction to any of his translations. In the manuscripts currently held in the British Library, Foote included various translations, of texts by Van Helmont and many others. Unfortunately, none of the Van Helmont translations are dated, but from other manuscript translations in which a date is recorded, it becomes clear that Foote showed an interest in medical and alchemical texts from 1654 onward. In that year he copied – and possibly translated – an anonymous text concerning 'Spirituale mummy and the tree of knowledge of Good and evle'.²² This is followed in 1657 by a transcript of George Starkey's *Exposition of Sir G. Ripley's epistle to Edward IV*, and in 1662 by 'experiments by Ramon Llull'.²³ The many other undated medical, alchemical and religious texts which can be found in Foote's manuscripts collection make his interests very apparent; his persona, however, remains concealed under his notes, so to speak. In that sense, his is the 'invisible translator' *per se*, but, as we shall see in the following parts of this chapter, he was able to leave his marks in the translations themselves.²⁴ Foote is, along with Christian Knorr von Rosenroth, the only translator who rendered the second introduction into another language: 'Aen de Oeffenaers der Geneeskunst', which was only published in the *Dageraed*, became 'To the Practitioners of the Art of Physicke'. Foote made an attempt to translate the full *Dageraed*, but he gave up, or perhaps his further trials from the end of the first chapter onwards went

¹⁹ Ibid., sig. a^v.

²⁰ See Chapter 1, pp. 57-8.

²¹ Chandler, 'The Translators Premonition', in *Oriatrike or, physick refined*, sig. a2^r.

²² BL, Sloane MS 3991, ff. 110-124. 'Mummy', i.e., 'mummy' (or *mumia* in Latin), especially in the Paracelsian tradition, means a medical remedy of particularly powerful efficacy.

²³ For Starkey's text, see BL, Sloane MS 633, ff. 2-13; Llull's experiments in BL, Sloane MS 630, ff. 1-29.

²⁴ Lawrence Venuti, *The Translator's Invisibility*, London 1995.

lost.²⁵ Foote decided to translate the term *pael*, which Van Helmont had chosen to denote ‘chapter’, with ‘pale’, a term that in English exactly corresponds to the meaning of Van Helmont’s term.²⁶ He also cleverly rendered Van Helmont’s *vaderlandtsche tael* (literally ‘language of the fatherland’) into ‘native tongue’, which renders the full sentence in the following manner: ‘I write this in my native tongue, that my neighbour may be commonly benefitted by it, knowing that the truth appears no where more naked, then where it is strip’d of all Ornaments.’²⁷ Also in the first introduction, Foote renders *moeders taele* (‘mother’s language’) into ‘native language, or mother tongue’, and managed to maintain the character of Van Helmont’s text.²⁸

The first French translation of one of Van Helmont treatise on fevers was provided by Abraham Bauda and published in 1652. While Charleton, just two years earlier, had clearly in mind Van Helmont’s views on translation, Bauda is mainly concerned with ‘a faithful rendering of the text, and following the meaning and the words of the author’.²⁹ A copy of this publication, currently held at the Wellcome Library, contains annotations by Bauda himself in preparation of a second edition, which was, however, never published.³⁰ This is unfortunate, as the translator promises to translate two more chapters in addition to the part already translated. The letter of dedication to the Marquis de Fabert, Governor of Sedan, is more concerned with defending his decision to translate a text written by an author who is subject to the King of Spain, rather than elaborating upon the language he is using. Bauda confines himself to saying that he is turning Van Helmont’s text into the language of his country.³¹

Almost twenty years later, in 1671, Jean le Conte published his abbreviated version of Van Helmont’s *Ortus medicinae*. In his dedication letter to Jean du Vache, the Baron of Châteauneuf de l’Albenc, Le Conte presented his translation ‘in our language’ as a ‘nouvelle doctrine’, just like Bauda did previously. Le Conte, though, added that the text itself was not new, however controversial its ideas continued to be at the time.³² To make these complex views comprehensible, he introduced Van Helmont’s medical ideas in a ‘Necessary introduction, for

²⁵ Daniel Foote, ‘Translations from Van Helmont’s *Dageraed*’, in BL, Sloane MS 632, ff. 26-41.

²⁶ *OED Online*, s. v. ‘pale’, n.1, meaning 5, Oxford 2014. Last accessed 9 May 2014. ‘A realm or sphere of activity, influence, knowledge, etc.; a domain, a field. Freq. in *within* (also *outside*) *the pale* (of), in which the figurative senses of “enclosed area” and “enclosing boundary” become difficult to distinguish.’ See Chapter 1, pp. 62-3.

²⁷ Van Helmont, ‘To the Practitioners of the Art of Physicke’, tr. by Daniel Foote, in BL, Sloane MS 632, f. 29^v.

²⁸ Van Helmont, ‘To the Honor of the unutterable name’, tr. by Daniel Foote, in BL, Sloane MS 632, f. 27^r.

²⁹ Abraham Bauda, ‘Le lecteur’, in Van Helmont, *Doctrine nouvelle: Touchant les fievres*, tr. by Abraham Bauda, Sedan [1652], sig. [†i]: ‘mais ay mieux aimé la traduire fidelement, et suivre le sens et les paroles de l’Auteur.’

³⁰ Van Helmont, *Doctrine nouvelle: Touchant les fievres*, tr. by A. Bauda Sedan [1652]: London, Wellcome Library, Suppl. A 57383/A.

³¹ Abraham Bauda, ‘A monsieur le marquis’, in Van Helmont, *Doctrine nouvelle: Touchant les fievres*, sig. †ii^r.

³² Jean le Conte, ‘A Monseigneur Messire Jean de Vache’, in Van Helmont, *Les Oeuvres de Jean Baptiste van Helmont*, tr. by Jean Le Conte, Lyon 1671, sig. a2^v.

the understanding of this new doctrine'.³³ With this substantial introduction of almost forty pages, Le Conte is the only translator who tried to summarize Van Helmont's ideas in his own words. He explained how he drew upon his own experiences as a physician in order to illustrate the new doctrines, but also how he might convince the sceptics to rely on these unorthodox methods.³⁴ His personal experiences dated back to the years between 1662 and 1668, and in the introduction he mentioned many people who had been treated and cured by him.³⁵ He never described the treatments he used, but only characterized them as 'astonishing' ('j'avois été étonné de voir...' and 'j'avois aussi été surpris', etc.) and effective.³⁶ Interestingly, he seemed not to be concerned with the fact that Paracelsus's recipes were 'covert in riddles and interlaced with unknown and barbaric words'. What he did, though, he explained, was 'to unveil some of the obscure words, and put them into a less difficult practice'.³⁷ Although he did not express the same concern about Van Helmont's language, we shall see in the next sections of this chapter that he had the tendency to simplify things.

Judging from the English and French introductions, it seems therefore clear that the French translators felt no special need to discuss the issue of language or even the philosophy of language in addition to their work as translators. From this point of view, we can observe a clear contrast with the English and the German translators, who not only hint at their versions, but also show themselves to be aware of the problems involved in the process of translation as well as of Van Helmont's own ideas on translation.

Let us turn to the two German translators who both published their translations in Sulzbach in the first half of the 1680s. Johann Heinrich Seyfrid translated Van Helmont's treatise on the plague, interestingly enough not from the Latin but from the Dutch. As we have read in the second chapter, the plague still very much posed a threat to the people in the Northern and Southern Netherlands during Van Helmont's lifetime.³⁸ Seyfrid was concerned with the epidemic which killed many people in the German lands (*Landschaften Teutschlandes*) during the 1670s. According to Seyfrid, the recent plague had prompted a large amount of publications and council meetings (*concilia*) in response to the outbreak, but this had not prevented further infection and death. For this reason, he translated Van Helmont's treatise, which not only

³³ Jean le Conte, 'Preface nécessaire, pour bien comprendre cette nouvelle doctrine', in *Ibid.*, sig. A^r.

³⁴ *Ibid.*, p. 5: 'À la fin les decrets de cette nouvelle Doctrine m'ont forcé de me rendre par mes propres experiences, comme on verra cy-apres. Mais comme j'ay veu que les ennemis de la peine la méprisoient et tachoient de la detruire, j'ay crû de la faire mieux connoître en traduisant en François ses principes de Physique. Le Traité des maladies en general; le traité de l'Ame: celuy des fievres et du calcul. Que si ie ne fay pas plaisir à ceux qui tâchent de l'étouffer: peut-être ne desobligeray-je pas quantité de curieux, qui prendront la peine de les lire, et qui les comprendront mieux en cette langue qu'en Latin.'

³⁵ *Ibid.*, pp. 27-8.

³⁶ *Ibid.*, p. 31.

³⁷ *Ibid.*: 'ses remedes étoient couverts d'enigmes et entrelassez de mots inconnus et barbares: j'essayai neantmoins d'en devoiler quelques-uns des moins obscurs, et de mettre en pratique les moins difficiles'.

³⁸ See Chapter 2, pp. 87-8.

included ways to treat the plague, but had the appealing motto that prevention is as important as therapy (*tam praeservando quam curando*).³⁹ What is more, Seyfrid empathized with the fate of the common man, who was usually neglected, and who would benefit from his publication.⁴⁰ For this reason, he chose the Dutch version of the treatise by Van Helmont, ‘which was first written in Low-German, and later amongst his other learned texts expanded in Latin and printed [...] mainly because it has nothing in common with other recently printed texts’.⁴¹ Surprisingly, Seyfrid praised Van Helmont for his clear recipes and remedies, the easy and simple instructions to prepare drugs (*leichte und ring-fügige Praeparation*), and for the fact that his text was ‘without the addition of many and long recipes from the dubious Paracelsus, or other alleged chemical secrets’.⁴² Seyfrid presented Van Helmont in positive terms for re-discovering Hippocratic methods for curing the plague. And although Van Helmont did indeed base some of his remedies for the plague on Hippocrates, it is hard to ignore the Paracelsian methods that were integrated into the text. It seems that Seyfrid tried to emphasize the quality and seriousness of Van Helmont’s text by subduing the Paracelsian parts and highlighting the Hippocratic influences. Apart from specifically using the Dutch *Dageraed* as the basis for his translation, Seyfrid did not exhibit any heightened sensitivity to Van Helmont’s use of language, or indeed, his own.

Christian Knorr von Rosenroth, the second German translator of Van Helmont, also used the *Dageraed*, but his translation, *Die Anfang der Artzney-kunst*, takes the *Ortus medicinae* as the basic text, translating this in full and adding German translations from the *Dageraed* where these complement the Latin text. In addition, the German text also includes Knorr commentaries. All three components (the translations from Latin and from the Dutch along with the commentaries) are visibly recognizable due to the use of different fonts.⁴³

As we have seen in the ‘Introduction’ to this thesis Knorr explained in his ‘Vorrede des Übersetzers’ that Van Helmont had wished to write all his works in Dutch, but that the need to resort to many unusual renderings he needed to make in Dutch had discouraged him from doing so.⁴⁴ Knorr was well aware of this issue, as is evident from his *Vorrede*:

³⁹ Johann Heinrich Seyfrid, ‘Vorrede’, in Van Helmont, *Tumulus pestis; Das ist, grünlicher Ursprung der Pest dero Wesen Art und Eigenschaft*, tr. by Johann Heinrich Seyfrid, Sulzbach 1681, sig.)(iii^r.

⁴⁰ Ibid.: ‘und sonderlich dem gemeinen Mann der hierunter gemeinlich am meisten leidet, am wenigsten aber pflaget bedacht zu werden, möchte zu rathen seyn.’

⁴¹ Ibid., sig.)(iii^v: ‘welches Anfangs er in Nieder-Teutsch beschrieben; in folgenden Zeiten aber unter andern seinen gelehrten Schrifften in Lateinischer Sprach vermehret zum Druck befördert worden, aus gedachter Niederländischer Version ins Teutsch zu übersetze erwehlet; und zwar hauptsächlich darum weilen es mit keinem andern so bißhero dem Druck untergeben, etwas gemein.’

⁴² Ibid., sig.)(iii^r: ‘ohne Einmischung vieler und langer Recepten, verdächtiger Paracelsischer, oder anderer vermeinter Chymischer Arcanorum.’

⁴³ These commentaries are so called supercommentaries

⁴⁴ Christian Knorr von Rosenroth, ‘Vorrede des Übersetzers’, in Van Helmont, *Anfang der Artzney-Kunst*, tr. by Knorr von Rosenroth, Sulzbach 1683, sig.)(iii^v. See Introduction, p. 23.

I should make the effort and find the differences between the two not entirely identical editions and compare them. In that way one would see not only how his father [i.e., Jan Baptista van Helmont] eventually changed many of his ideas first formulated in Dutch but also how he was able to add many explanations to the better understanding of the Latin work, and even some different good remedies that one could include in this work.⁴⁵

Knorr translated both introductions written by Van Helmont, ‘To the ineffable name’, and ‘To the practitioners of medicine’, although the latter did not appear in Latin. In both introductions Van Helmont spoke about his native tongue (translated as ‘Muttersprache’) and the role it played in his translation theory. The fact that Knorr translated both introductions – in which Van Helmont sets out his views about language – and mentioned Van Helmont’s initial wish to write all of his works in Dutch reflects Knorr’s awareness of language and translation. Not only was he attempting to be comprehensive, he was also taking into account Van Helmont’s principal ideas about the function of language. Knorr tried to improve the earlier Latin editions by restructuring the sequence of treatises, which he complemented with the translations from the Dutch. In between the translations of these two introductions, Knorr added a 12-page long ‘Other introduction’, which consists of a vast Ramist table divided according to alternatives in therapy – the first dichotomy is between 1) ‘against the diseases’; 2) ‘to the promotion of a long life’.⁴⁶ Knorr ended this unusual introduction, which could be seen as a different way of organizing and abridging the material, by commenting on his translation methods.

So in the translation of this complicated work, I have made the greatest effort to make everything comprehensible, and may the favourable reader consider it positively, if I pursued the meaning more than the words, also if I had to use some new and unusual words, as the new and uncommon methods (*Lehr-Arten*) did not allow me anything else. And for the same reason, I have been slightly more diligent with the addition of the Dutch than some would judge necessary, so that with these complex things not one word falls by the wayside from which clarity can be created.⁴⁷

⁴⁵ Knorr von Rosenroth, ‘Vorrede des Übersetzers’, in *Aufgang*, sig.)(iii^v: ‘Ich sollte aber doch die Mühe nehmen und die beyden wiewol gantz nicht in einerley Ordnung begriffene Editionen auseinander suchen und gegen einander halten so würde man nicht nur sehen wie sein Herr Vater selbst seine ersten in dem Niederländische noch enthaltene Meinungen in vielen Stücken auf die letzte geändert sondern auch noch manche gute zum bessern Verstand des Lateinischen Wercks gehörige Erläuterung, ja noch unterschiedliche gute Mittel Artzneyen darinnen befunden so man in diesem Werck mit einbringen könnte.’

⁴⁶ Ibid., sig.)(t -)000(2^v.

⁴⁷ Ibid., sig.)(00(2^v: ‘In der Übersetzung nun hab ich mich bey einem so schweren Werck nach äusserster Müglichkeit beflissen alles verständlich zu machen: und mag der günstige Leser mir freundlich zu gut halten wenn ich bißweilen mehr dem Sinn als den Worten nachgegangen: auch etwan neue und ungewöhliche Worte brauchen müssen, weil es die neue und ungewöhliche Lehr-Arten nicht anderst wollen zu lassen. Und um dieser Ursach willen bin ich auch mit Neben-Setzung des

As we have seen in the above, all the translators – apart from Daniel Foote – introduced their translations with an explanation or defence for their rendering of Van Helmont’s texts into a vernacular language. Improving the comprehensibility of Van Helmont’s complex theories and making the texts available for common people are most often given as reasons. Walter Charleton, John Chandler, and Christian Knorr von Rosenroth gave some explanation about their methods or choices of translation. All of them preferred comprehensibility over a strict word-for-word translation, even though they disclosed various ways of dealing with the typical Helmontian and Paracelsian words. The other translators did not elaborate upon their methods of translations, but their choices will become clear soon enough. In the next section we shall analyse Van Helmont’s philosophy of language and translation in combination with his philosophy of the mind, and the different ways in which the translators dealt with this topic and its specific terminology. In Chapter 1 and 2 Van Helmont’s own languages have been compared while explaining his ideas, and here we shall continue with the reception of these ideas through the eyes of the translators.

Talking about Language

Regardless of how innovative Van Helmont was in his ideas, he still had to rely on the scholastic vocabulary. This becomes especially apparent when he discusses philosophical topics, contradicting the old schools in their own vocabulary. This chapter on ‘Views about Translation’ serves as the first part of a diptych – the next chapter ‘Translating Practice’ forms the other part. In the course of these chapters, we shall discuss the interplay of several oppositions – between theory and practice, Latin and vernacular, and old and new vocabulary. As we have seen in the first two chapters there is a discrepancy between Van Helmont’s views about language and his practice when it comes to language and translation. Certainly, this discrepancy in itself does not justify separating theory and practice over two different chapters. However, Van Helmont’s notion of translation is entirely embedded in his philosophy of the mind and the way in which human beings obtain knowledge, in other words, his epistemology. Therefore, in this chapter we shall discuss the translation of Van Helmont’s more theoretical, epistemological treatises, whereas the next chapter concentrates on the translation of applied, practical knowledge, such as medicine and alchemy.

In the *Ortus medicinae*, the chapters in which he sets out his epistemology (his chapters on the human mind, on logic and those against the teaching methods of the schools) employ a rather fixed philosophical vocabulary, based on Aristotelian philosophy. We shall simply call this the

Niederländischen bißweilen etwas sorgfältiger gewesen, als mancher erachten dörfte nothwendig zu seyn: damit ja bey so schweren Dingen auch schier nicht ein einziges Wort hinschleichen dörfte, woraus einige Deutlichkeit zu schöpfen.’

‘established’ vocabulary. As already discussed in Chapter 1, there was a multitude of religious texts written in Middle Dutch during the late Middle Ages, which led to an early formation and standardisation of religious language in Dutch. By the seventeenth century, the philosophical vocabulary in Dutch, English, French and German, the vernacular languages discussed in this thesis, had emerged, but in none of these languages was this vocabulary as stable as it was in Latin. This can be inferred from examples taken from Van Helmont himself, since he often added the Latin term while writing in Dutch, presumably to make sure that his readers were able to understand him.⁴⁸ The translators were also dealing with the same well-known vocabulary in Latin when they were translating it into their vernaculars. In the next chapter we shall analyse the more practical subjects, which inspired Van Helmont to be more innovative in his use of words. In combination with the legacy of Paracelsus, which was just over a hundred years old, this led to the creation of a new vocabulary. This then makes it possible to analyse how translators addressed the challenge of translating, firstly, the older more established vocabulary from Latin into their vernaculars and, secondly, the new vocabulary belonging to new practices in early modern science and medicine. There were different methods of rendering newer terms from Latin into the vernacular. For example, translators could include the original Latin term within their version; they could find a new term in the vernacular and supplement it with an explanation in this language; finally, they simply could adopt the Latin term. Van Helmont himself often chose the last option, and used the same new terms in both Latin and Dutch. It is not hard to imagine that the older terminology was best known in Latin, also for the translators, whose education clearly gave them a proficiency in this language. Some of the newer terms, however, probably had their origin in the vernacular rather than in Latin, which meant that they needed more explanation in Latin than in the vernacular. From Van Helmont’s introductions it becomes clear that he intended to write more in Dutch, but that he lacked the necessary technical vocabulary. This deficit might have had less to do with the state of the Dutch language, and more with Van Helmont’s lack of fluency in Dutch as a professional language.⁴⁹ In this chapter as well as in the next, we shall therefore compare translations of Van Helmont’s texts to see how the translators solved these linguistic problems. One question that should be addressed is what a mother tongue is, and whether it can always be counted as equal to the language in which one speaks and thinks first. Van Helmont declared Dutch to be his first language, but, after having read his texts, one could argue that, at least with regard to his professional field of expertise, this honour fell to Latin. As discussed in Chapter 1, Van Helmont’s syntax in Dutch – as used in the *Dageraad* – is strongly based on Latin syntax. While his Dutch vocabulary might not show any signs of insufficiency and although his writings are

⁴⁸ See for example Van Helmont, ‘Tweeden Pael: Van Reden en Verstandt’, in *Dageraad*, p. 20: ‘een vermeynt gepeyns, een *ens rationis*’; ‘de toedracht, oft *habitude*’; ‘strydt-reden, oft *disputatie*’.

⁴⁹ On bilingualism and dominant languages in different fields, see François Grosjean, *Bilingual: Life and Reality*, Cambridge, MA 2010, pp. 28-38.

full of Dutch idioms, indicating a certain flair in the use of his native language, he nevertheless chose to write the far greater part of his works in Latin. This decision might have been motivated by a perceived lack of available terminology in Dutch. However, if we look at his own writings and those of his contemporaries who write about medicine in Dutch, the discussion does not seem to have been hobbled by a paucity of exact terminology. This leads us to suspect other reasons for Van Helmont to continue to write in Latin instead of Dutch. One of the most likely reasons lay in his wish to reach and communicate with colleagues on a European scale. Of course, here knowledge of Dutch could not be presumed. Therefore, he turned to Latin. Apart from the international community which could now read his text, he himself seemed to have been more comfortable with writing in Latin, as both Latin syntax and vocabulary are manifest in his Dutch text in the *Dageraad*. Therefore I would suggest that professionally Van Helmont's first language was actually Latin and not Dutch.

In the following section we shall focus on Van Helmont's idea that reason does not belong to the intellective part of the soul, but to its animal nature. This idea deviates from the standard Aristotelian understanding of the mind in which reason is assigned to the intellective soul (see Chapter 1, p. 55). Since this interpretation was a response to Aristotle, Van Helmont was able to build upon established vocabulary. This case, therefore, provides us with an excellent basis for analysing the translation of established terminology and for providing material which allows us to determine in which language these terms were predominantly stored in the translator's minds. It also left the translators room for interpretation, not in the way they rendered terminology, but rather in the translation of meaning, as we shall see in the following.

In order to improve the readability of this chapter, I have included longer quotations from the English translations in the main text, whereas I tend to paraphrase the French and German versions, once the reader has thus gained a certain familiarity with Van Helmont's texts in English. The full quotations in French and German, as well as the Dutch and Latin originals, can be found in the footnotes.

Van Helmont discussed reason and intellect in the fourth chapter of the *Ortus medicinae*, the already mentioned essay devoted to the search for true knowledge ('*Venatio scientiarum*') which follows upon three autobiographical chapters. Although it is unclear whether Van Helmont determined the order of these chapters himself, a confirmation of the prominence he gave to these concepts comes from the *Dageraad*, in which the second chapter is dedicated to reason and intellect. Walter Charleton did not translate this particular chapter; instead he included the chapter 'Imago mentis' ('The Image of the Mind'), to which we shall return shortly. John

Chandler and Daniel Foote both translated ‘Venatio scientiarum’, from which the first two paragraphs are given here.⁵⁰

Here is how John Chandler’s translation from the *Oriatrike* (1662) reads:

1. Reason is accounted to be the life of the Soul, or the life of our life. But I believe, that the Almighty is alone, the way, the truth, the life, the light, of living Creatures, and of all things; but this is not reason. And therefore, that our minde ought to be intellectual; but not rational, if it ought to shew forth the most immediate Image of God. That Paradox is to be cleared up, for the searching out of all things knowable, and especially of things Adeptical, or the attainment of great secrets. By my will, or according to my assertion, all Phylosophy begins and proceeds from the knowledge of ones self: whether it be natural, or morall. 2. I will therefore propose, so far as I (through my slenderness) do attain, the understanding, and the abstruse or hid, or inward knowing of our selves. For the undoubted opinion of the Schooles, beares in hand, that God hath bestowed on man, nothing more pretious than Reason, by which alone, we are distinguished from bruit Beasts, but bear a co-resemblance with the Angels. So I being also perswaded from my tender years, believed. But after that, discretion had waxed ripe, and I had once beheld my Soul, I perceived altogether otherwise: I confess in the mean time, that I had rather be wise in secret, than to be willing to seem wise; but to be alwayes more desirous to learn, than to be one that endeavoureth to teach. Notwithstanding, I ought to teach some things, least I be found to have buried my Talent received, in the Earth.⁵¹

This instead is Daniel Foote’s translation:

1. Reason is reputed to be the life of the Soule, or the life of our life. But I rather believe that the Omnipotent, is alone the way, Truth, life and light of all things livinge and unliving; and yett this cannot be accounted reason. And therefore, if the minde of Man must most nearly resemble the image of God, it ought to be intellectual and not

⁵⁰ Van Helmont, ‘Venatio scientiarum’, §§ 1-2, in *Ortus medicinae*, p. 20: ‘Ratio putatur vita animae, sive vita vitae nostrae. Ego autem credo, quod Omnipotens, sit solus via, veritas, vita, lux viventium, et rerum omnium, non hoc est autem Ratio. Atque ideo quod mens nostra debeat esse intellectualis; non autem rationalis, si Dei simulacrum proximum referre debeat. Paradoxon istud elucidandum, ad scibillum cunctorum, Adeptorumque inprimis investigationem. Voto meo, omnis Philosophia incipit, et procedit a cognitione sui ipsius: sive physica illa fuerit, sive moralis. Intellectum itaque, atque nostri cognitionem abstrusam proponam, quantum mea assequor tenuitate. Fert enim opinio Scholarum indubia, quod Deus nil pretiosius largitus sit homini Ratione; per quam solam a brutis distinguimur, cum Angelis vero symbolizamus. Sic quoque et ego, a teneris annis persuasus, credidi. Sed postquam discretio adolevisset, et animam meam semel intuitus essem, prorsus aliter sensi: fateor interim, me malle sapere in occulto, quam velle videri sapere, plus autem semper discere avidum, quam docere, annisum. Attamen debui quaedam docere, ne talentum susceptum defodisse reperiar.

⁵¹ Van Helmont, ‘The Hunting, or Searching out of Sciences’, §§ 1-2, in *Oriatrike*, tr. by J. Chandler, pp. 15-6.

rationall. This paradox is to be elucidated in order to an investigation of all Things knowable; and principally of those that belonge to Adept knowledge. By my suffrage, all Philosophy takes its beginnige, and also makes its progress from the knowledge of one selfe, whether it be naturally, or morally. Therefore I shall propose: accordinge to the uttmost of my slender abilities, somewhat concerninge the understandinge and the abstruse knowledge of ourselves. 2. The Scholes give this for their undoubted opinion; that God hath bestowed on mandkinde, nothinge more precious then Reason, by which alone wee are distinguished from brutes and are made like to the Angells. Yea and thus, I also believed havinge bene so persuaded from my youth upwards: But after that I had attained to maturity of discretion and had once gotten an intuitive prospect of my soule, I gained a sence of that that was quite different from ye former. In the interime I acknowledge, that I would rather choose to be wise in private, then to be willinge only to seeme wise, havinge allwaies bine mere forward to learne, then eager to teach: And yett it is my duty to be a teacher in some thinges, least I be founde to be one that hath buried the Talent he received.⁵²

Both translators have no problem with rendering the terminology of the mind into English; ‘reason’ for *ratio*, ‘soul’ for *anima*, ‘mind’ for *mens*, ‘intellectual’ for *intellectualis*, ‘rational’ for *rationalis*, etc. Also Walter Charleton uses the same terminology without recourse to further explanation.⁵³ We can therefore conclude that the terminology for the philosophy of the mind was fixed at the time John Chandler translated Van Helmont into English. More variety can be found on the level of interpretation. Foote tends to provide a literal translation of Van Helmont, but in a way that all the expressions that appear to be more complex and idiosyncratic are diluted into more ordinary phrases and words. For example *symbolizamus* is rendered as ‘made like to’ and *animam meam semel intuitus essem* as ‘I had once gotten an intuitive prospect of my soule’. In the latter example, Van Helmont is – in more forceful terms – referring to the direct union of the soul, which is translated by Chandler as ‘I had beheld my soul’. *Sapere in occulto* is attenuated into ‘to be wise in private’, whereas Chandler’s translation is probably more faithful to Helmont’s text by translating it as ‘to be wise in secret’. In Foote’s rendering, one can clearly see the shift from the Helmontian *intellectus* to the Lockean *understanding*.⁵⁴ The attainment of the intellect, which ultimately coincides with the union with God, and the direct vision of the soul represent two key points in Van Helmont’s philosophy and they become obscured in Foote’s translation.

⁵² Van Helmont, ‘The Indagation of Knowledge’, §§ 1-2, in BL, MS Sloane 629, tr. by D. Foote, f. 199^v.

⁵³ See, for example, Van Helmont, ‘The Image of God’, § 5, in W. Charleton, *A Ternary of Paradoxes*, p. 124; compare with Van Helmont, ‘Imago mentis’, § 5, in *Ortus medicinae*, p. 254.

⁵⁴ John Locke, *An Essay Concerning Humane Understanding*, London 1690. See Nicholas Jolley, *Leibniz and Locke: A Study of the New Essays on Human Understanding*, Oxford 1984, Ch. 1 (‘Introduction’), pp 1-11.

Van Helmont describes parts of this chapter as a dream vision, in which he lets the mind, the soul, reason and intellect speak on their own behalf. The dream allows him to observe his own mind and to realize that it is not reason, but the intellect that provides true knowledge (*scientia*).⁵⁵ Chandler translates ‘my minde asked, what knowledge Reason could give?’, and Foote renders it more freely, while giving Reason a feminine gender like in Latin, saying ‘the minde demanded of Reason, what knowledge was in her power to impart?’.⁵⁶ The answer from Reason is that it can very well produce knowledge by using the art of Lull (*per artem magnam Lullii*), which is logic. As we have already briefly seen in Chapter 1, and as we shall see in the next section, Van Helmont denies that logic can have any real cognitive usefulness.⁵⁷ Chandler translates a key passage as follows:

Indeed, I throughly beheld, that the Soul was not in need of, yea, nor the framer of a Syllogisme, because it will not use it, being once severed from the body. For truly, its native knowledge, was far more noble, and certain, than any demonstration, which is the top of reason. [§ 20] Then in the next place, I knew, that neither did sense frame a Syllogisme; but that Reason, the framer of demonstrations, did possess the animall understanding, or Imagination, which is a meane between the senses and the intellect.⁵⁸

Foote renders the same passage in the following manner:

Insomuch as I plainly discovered, that the soule stooode in no neede off, no nor so much as ever framed a syllogisme for her use, and that because when once she becomes sequestred from the body, she refuseth utterly to make any use thereof. For indeede her own native knowledge is much more noble and certaine then any demonstration whatsoever, which yett is the very top of all reason. 20. Then at length I came to know, that neither doth sense forme a syllogisme, but that reason only is the framer of demonstrations, whose possession is the animall intellect, or immagination, which is a thinge between sense and intellect.⁵⁹

⁵⁵ Van Helmont, ‘Venatio scientiarum’, § 15, in *Ortus medicinae*, p. 21: ‘Tandem mens rogavit, quam Scientiam Ratio dare posset?’.

⁵⁶ Van Helmont, ‘The Hunting, or Searching out of Sciences’, § 15, in *Oriatrike*, tr. by J. Chandler, p. 17; Van Helmont, ‘The Indagation of Knowledge’, § 15, in BL, MS Sloane 629, tr. by D. Foote, f. 201^r.

⁵⁷ Van Helmont, ‘Venatio scientiarum’, § 19, in *Ortus medicinae*, p. 22: ‘Perspexi nimirum, quod anima non esset indiga, imo nec formatrix Syllogismi, eo quod illo uti nolit, semel a corpore sequestrata. Siquidem ejus cognitio nativa, longe nobilior atque certior esset, quavis demonstratione, Rationis apice. Tum denique cognovi, quod neque sensus Syllogismum conderet: sed quod Ratio demonstrationum formatrix, possideret animalem intellectum, sive immaginationem, mediam inter sensus, et intellectum.’

⁵⁸ Van Helmont, ‘The Hunting, or Searching out of Sciences’, §§ 19-20, in *Oriatrike*, tr. by J. Chandler, p. 18.

⁵⁹ Van Helmont, ‘The Indagation of Knowledge’, §§ 19-20, in BL, MS Sloane 629, tr. by D. Foote, f. 201^v.

The passages examine syllogisms, the most common form of logical arguments amongst natural philosophers and physicians at the time.⁶⁰ It is once more interesting to see that both translators are using the same vocabulary for these processes within logic, such as demonstration (*demonstratio*). The concept of ‘framing a syllogism’ is used by both Chandler and Foote, and is together with Foote’s second ‘forming of a syllogism’, a particularly English way of rendering the Latin *formatrix*, a noun describing reason as the former or framer of syllogisms. The German translator, being more concerned that his readers might find the passage difficult to understand, added the original Latin terms to his translations, as we shall see shortly. Van Helmont felt the need to specify that by ‘animal intellect’ he meant the imagination. Chandler translated *intellectus* with ‘understanding’, Foote with ‘intellect’, two terms which are used interchangeably. The fact that Van Helmont sees the imagination as the mediator between the senses and the intellect has already been discussed in Chapter 2 in connection with his medical theories.

Jean le Conte approached the translation of Van Helmont’s works very differently from the English translators. Not only did Le Conte write a summary instead of a word-for-word translation of (some of) Van Helmont’s works; he also restructured the material into four main topics: Van Helmont’s basic categories; Digestion, Humour, Mind and Pulse; The soul; and Diseases.⁶¹ The chapter dealing with the ‘hunting’ after true knowledge (‘Venatio scientiarum’) is included in the section on the soul (‘Traité de l’ame’), as the first chapter (‘L’ame n’est point raisonnable mais intellectuelle et la raison prend souvent le mensonge pour la verité’), immediately followed by the chapter on the image of the soul (‘L’image de l’ame’). Le Conte does not follow the internal structure of the chapter either, but rather imposes upon it his own order. He adds Latin quotations from the *Ortus medicinae*, which are sometimes biblical quotations used by Van Helmont; on other occasions, they are quotes from Van Helmont himself, to whom Le Conte refers in the third person, instead of letting him speak in the first person.⁶² In his abbreviated version of the first two paragraphs of the ‘Venatio scientiarum’, Le Conte leaves the angels out of the story, and sees – apart from the full quotations in Latin – no reason to include Latin in order to explain terminology.⁶³ Le Conte opens the chapter by mentioning that one cannot judge the resemblance – in this case between man and God – through a copy (*une copie*), i.e., an angel, and does not discuss angels any further in the chapter. To Van Helmont this notion is vital in understanding that human beings can receive knowledge,

⁶⁰ Ian Maclean, *Logic, Signs, and Nature in the Renaissance*, Cambridge 2002, p. 124.

⁶¹ Le Conte, ‘Table des Chapitres’, in *Les Oeuvres de J. B. van Helmont*, sig. a3^v-[a4]^r.

⁶² See for example Van Helmont, ‘L’ame n’est pas raisonnable’, in *Les Oeuvres de J. B. van Helmont*, tr. by J. Le Conte p. 198; and Van Helmont, ‘Venatio scientiarum’, § 36, in *Ortus medicinae*, p. 25.

⁶³ Van Helmont, ‘L’ame n’est pas raisonnable’, in *Les Oeuvres de J. B. van Helmont*, tr. by J. Le Conte, p. 198: ‘Puis donc que l’home quant à l’Ame doit être le simulacre de Dieu, qui seul est la voye, la verité, la lumiere des vivans, et de toutes les creatures: son ame doit être intellectuelle et non pas raisonnable. Car la raison (que les écoles croyent avoir été donnée à l’homme, comme la chose la plus pretieuse, qui le devoit faire differentier des brutes) est caduque et mortele, et est entrée en l’homme avec la mort, par la porte de la prevarication, où elle est restée comme une marque fortement imprimée par la main d’un bourreau.’

but it is not how it is expressed in ‘Venatio scientiarum’. As we saw above, he claims that we have a nature that is similar to the angelic one (*cum Angelis symbolizamus*), whereas Le Conte says that ‘it is impossible to give a valid definition of man based on Angels’.⁶⁴ Although he regularly follows his own interpretations rather forwardly, his translations of the section where reason is undressed as the *formatrix* of syllogisms and demonstrations is true to the spirit of Van Helmont’s inquiry, and uses the same terminology as the Latin text consistently.⁶⁵

The German translators Johann Seyfrid and Christian Knorr von Rosenroth apply yet a different method in their translations of Van Helmont’s texts: they regularly add the Latin terms, every time they need to make their German more perspicuous. Seyfrid did not translate the chapter we are discussing here into German. Judging, however, from the chapters on the soul, mind and imagination that are included in his translation of the treatise on the plague, it becomes clear that especially the terminology on the mind is complemented by the Latin terminology, such as when Seyfrid writes: ‘eine Einbildung des Schreckens (*imaginatio territa animae*)’.⁶⁶ We shall return to this translator in the next chapter.

A potential reason for including Latin terminology in the German translations is that the German vocabulary is actually rather different from the Latin when this is compared to English and French. This also might allude to the dominant ‘working languages’ of the two translators, which is Latin rather than German. However, this can only be a tentative hypothesis. In the opening paragraphs of ‘Venatio scientiarum’ (or in German ‘Wie den Wissenschaften nachzujagen’), Knorr von Rosenroth is clearly confident about his use of German terminology and therefore does not need to include the Latin. Reason is translated with ‘Vernunft’, the soul with ‘die Seele’, mind as ‘Gemüth’, intellect with ‘Verstande’, intellectual with ‘verständlich’, and rational as ‘vernünftig’.⁶⁷ The use of these vernacular terms can be traced back to several

⁶⁴ See fn. 50; and Van Helmont, ‘L’ame n’est pas raisonnable’, in *Les Oeuvres de J. B. van Helmont*, tr by J. Le Conte p. 197: ‘aussi ne doit-on pas douter qu’il étoit impossible aux Gentils de donner une valable définition de l’homme.’

⁶⁵ *Ibid.*, p. 203: ‘[L’auteur] connut que l’Ame intellectuelle n’étoit une fois séparée du corps, elle n’avoit pas besoin de former des Syllogismes; mais que c’étoit la Raison formatrice de demonstrations qui possédoit un certain entendement Animal, ou une imagination, qui tenoit le milieu entre le sens et l’entendement intellectuel, et qu’elle n’habitoit pas pêle-mêle avec le véritable entendement immortel.’

⁶⁶ Van Helmont, ‘Das zwölffte Capitel: Deutlicher und näherer Beweiß der Verbildung’, in *Tumulus pestis*, tr. by J. H. Seyfrid, p. 205.

⁶⁷ Van Helmont, ‘Der vierdte Tractat: Wie den Wissenschaften nachzujagen’, in *Aufgang*, tr. by Knorr von Rosenroth, pp. 18-9: ‘1. Ins gemein hält man zwar dafür die Vernunft sey das Leben der Seelen, oder das Leben unsers Leben. Ich aber glaube daß Gott der Allmächtige allein der Weg, die Wahrheit, das Leben und das Liecht der Lebendigen und aller andern Dinge sey: Und ist demnach solches nicht die Vernunft. Und daß dannhero unser Gemüth solle etwas verständiges seyn, und nicht etwas vernünftiges, wenn es dem Bilde Gottes am nächsten will ähnlich seyn. Diese unvermuthete und ungemeyne Lehre ist etwas besser zu erläutern, wenn wir alles was man wissen kan, und sonderlich das was wir gründlich besitzen sollen, recht wollen untersuchen. Meinen Gedanken nach fängt alle weltliche Weisheit an und hat ihren Ursprung von der Erkenntnis sein selbst; sie mag nun zur Natur gehören, oder zu den Sitten. Darumb will ich nun handeln vom Verstande und von unserer verborgnen und geheimen Erkenntnis so viel ich in meiner Wenigkeit werde erreichen können. 2. Denn die ungezweifelte Meinung der Schulen ist diese, daß Gott dem Menschen nichts köstlicher gegeben habe als die Vernunft durch

centuries before Knorr von Rosenroth, to a time when they were used in mystical texts (for example by Meister Eckhart) and in medieval poetry.⁶⁸ For the translation of *symbolizamus*, Knorr decided to give a description, of ‘we who stand in community and uniformity with the angels ([wir] mit den Engeln aber in einer Gemeinschaft und Gleichförmigkeit stehen’), which betrays Knorr’s wish to carefully translate all aspects of the Latin verb used by Van Helmont. The sentence in which Van Helmont explains that he had matured in discretion and once reflected upon his soul is rendered into an idiomatic sentence in German, which literally translates as ‘after I had come to better understanding’, followed by the statement that he had once seen this soul (‘und die Seele einmal gesehen’).⁶⁹ This translation ‘to see the soul’ is less strong than Chandler’s version in which he ‘beheld’ the soul, and does not reflect the idea of a union of the soul, although the seeing in Knorr’s rendering implies a reflexivity of the soul (to see itself) which comes close to Van Helmont’s meaning. With the question ‘what kind of knowledge Reason could bring’ (‘was die Vernunft vor eine Wissenschaft zuwege bringen könne?’), we see for the first time how Van Helmont’s *scientia* (‘knowledge’) is translated as ‘Wissenschaft’ in German, literally ‘the art of knowing’, and not into ‘Kenntnisse’. The latter could also be translated as ‘knowledge’ in English, but it refers to knowledge which is acquired through learning and reading, and might be called factual knowledge. Moreover, it is significant to see how the term ‘Wissenschaft’ would become the common term within academia to refer to ‘knowledge’ and even to the various ‘sciences’ in general. The passage in which Van Helmont explains that the soul does not need logic and syllogisms demonstrates that the transition into German was not so self-evident. The terminology related to logic – such as *Schlußrede* for *sylogismus*, and *Beweis̄thum* for *demonstratio* – are used by Knorr, but accompanied by the Latin term in brackets.⁷⁰ These words were not entirely uncommon, but were not as engrained in the vernacular German mind as the vocabulary used by the mystics. This is a first indication that

welche wir allein von den Thieren unterschieden werden mit den Engeln aber in einer Gemeinschaft und Gleichförmigkeit stehen. Und so bin auch Ich von meiner Jugend an beredt worden und hab es geglaubt. Nach dem ich aber zu besserm Verstande kommen, und die Seele einmal gesehen, bin ich gantz anderer Meinung worden. Unter dessen muß ich bekennen, daß ich lieber will heimlich etwas recht wissen, als öffentlich das Ansehen haben, als ob ich etwas wisse: Auch daß ich allezeit Begieriger gewesen etwas zu lernen; als ich mich bemühet andere zu lehren. Dach hab ich etwas lehren müssen, damit ich nicht erfunden würde, als einder der sein empfangenes Pfund vergraben.’

⁶⁸ See Jacob and Wilhelm Grimm (eds), *Deutsches Wörterbuch*, 16 vols, Leipzig 1854-1961, s. v. ‘Gemüt’ and ‘Vernunft’ (online via <http://www.woerterbuchnetz.de/DWB>), hereafter *DWB*.

⁶⁹ For the full Latin quotation, see fn. 50, this particular part; ‘Sed postquam discretio adolevisset, et animam meam semel intuitus essem.’ The German idiomatic sentence is ‘Nach dem ich aber zu besserm Verstande kommen’, see fn. 67 for full quote.

⁷⁰ Van Helmont, ‘Der vierdte Tractat: Wie den Wissenschaften nachzujagen’, in *Aufgang*, tr. by Knorr von Rosenroth, p. 21: ‘Da sahe ich nun daß die Seele keiner Schluß-Rede (Syllogismus) vonnöthen hat; ja daß auch sie die Schluß-Rede nicht macht dieweil sie deren nicht zu gebrauchen hat, wenn sie einmal von dem Leibe abgeschieden ist; umb des willen daß ihre natürliche angeschaffne Erkenntnus viel edler und gewisser ist als eine jedere Art von Beweis̄thum; (Demonstratio.) so doch der höchste Gipfell der Vernunft ist. Darzu erkannte ich endlich auch, daß auch der Sinn keine Schluß-Rede mache; sondern daß die Vernunft welche die Meisterin ist, so die Beweis̄thümer maht bestehe in dem Thierischen Verstande, nemlich in der Einbildung (imaginatio s. phantasia.) und also in dem Mittel zwischen dem Sinn und zwischen dem Verstande.’

translation of terminology and meaning depends on the vernacular language into which the text is translated, but also the topic that is discussed. As will become clear, not every topic within the broad fields of science and medicine had the same history of usage in vernacular languages. We shall now investigate in further detail how the various translators dealt with the topic of logic.

On the Uselessness of Logic

In the last part of this chapter, I shall focus on an important section of Van Helmont's *Ortus medicinae*, that is, his discussion about the role of logic in advancing human knowledge of reality, and I shall use it as a sample, to show how the various translators tackled the task of rendering some of the most characteristically Helmontian notion and turns of phrases. In the chapter in question, Van Helmont presents the basic rules for his new philosophy, in which logic plays no role, since this limits itself only to repeat what is already known rather than generating new knowledge.⁷¹ To cut out logic from science, one needs drastic measures, as we see here in Chandler's formulation.⁷²

For it was needful, that in the composing of new Philosophy, I should break down almost all things that have been delivered by those that went before, and many things ought to be set in good order, and restored, which every one will not receive with a like acceptance.⁷³

Daniel Foote's translated the same passage as following:

Know we after that it became necessary that I who was to plant a new philosophy, should roote up all almost that was delivered down to me from the predecessors, yea, and that many thinges ought to be instituted, and restored also, beinge such as every one will not receive with the same minde.⁷⁴

Foote is not very economical with his wording ('know we after that it' and 'beinge such as') in this specific passage, which reflects the unedited status of his translation in manuscript. It is unclear whether these texts were ever meant for wider distribution or just for Foote's own use, but the above probably hints towards the latter possibility. The *nova philosophia* Van Helmont is describing must have had its resonance in the second half of the seventeenth century in England, due to Van Helmont's contemporary Francis Bacon and his ideas about reforming the

⁷¹ Van Helmont, 'Logica inutilis', § 17, in *Ortus medicinae*, p. 42: 'Non est igitur Syllogismus, ad inveniendas scientias, sed potius, ut inventas opiniones aliis demonstret.'

⁷² Ibid., § 3, in *Ortus medicinae*, p. 40: 'Etenim mihi necesse fuit, in condenda nova Philosophia, omnia paene rescindere, a prioribus tradita, multaque institui, et restitui debere, quae pari animo, non recipiet quilibet.'

⁷³ Van Helmont, 'Logick is unprofitable', § 3, in *Oriatrike*, tr. by J. Chandler, p. 37.

⁷⁴ Van Helmont, 'Logicke is useless', § 3, in BL, MS Sloane 629, tr. by D. Foote, f. 209r.

educational system. There were many similarities between their ideas. They both wanted to abandon the use of logic and syllogisms, and agreed on the negative effect of the many thought processes on the reception and maintenance of truth. As Bacon wrote in his introduction to the *Novum organum* (i.e., his new method for acquiring reliable knowledge):

For it is to establish degrees of certainty, take care of the sense by a kind of reduction, but to reject for the most part the work of the mind that follows upon sense; in fact I mean to open up and lay down a new and certain pathway from the perceptions of the senses themselves to the mind. Now this was doubtless seen by those who have attached so much importance to dialectic – whence it is clear that they were looking for props for the intellect distrusting the mind's inborn and spontaneous movements.⁷⁵

Here it is worth noting Bacon's focus on perception through the senses. In his opinion, the senses have the ability to perceive the truth, but then are obscured by the operations of the mind. Provided that all learning processes forced on the intellect through logic are put aside, the 'spontaneous movements' can do their work. This spontaneous process is very close to Van Helmont's view about the intellect, as being closer to reality than reason. It should also be said that, although Van Helmont did not formulate a new method for science, and surely never promoted the senses as Bacon did, he nevertheless praised the use of alchemical experiments to obtain new knowledge based on direct observation of nature. We shall discuss this question further in the next chapter.⁷⁶

In Van Helmont's mind, breaking down the old structures of the educational system was tantamount to showing that no truth could be found in logic, as is nicely phrased in the next passage.⁷⁷ In Chandler's translation it reads as follows:

Therefore in this place, we must enquire, how much of truth, power, and profit it [i.e., logic] may have. As to that which concerns my self, I know, that every dispute doth at length, bring forth a conclusion; but that every conclusion brings in onely an opinion. Yea, that the most strong reasoning (they call it a Syllogisme) never afforded any

⁷⁵ Francis Bacon, *Novum organum*, in *The Instauration Magna Part II: Novum Organum and Associated Texts*, ed. by Graham Reese with Maria Wakely, Oxford 2004, pp. 52-3: 'Ea enim est, ut certitudinis gradus constituamus, Sensum per reductionem quandam tueamur, sed Mentis opus quod Sensum subsequitur, plerunque rejiciamus; novam autem et certam viam, ab ipsis Sensuum perceptionibus, Menti aperiamus, et muniamus. Atque hoc proculdubio viderunt et illi, qui tantas Dialecticae partes tribuerunt. Ex quo liquet, illos Intellectui adminicula quaesivisse, Mentis autem processum nativum, et sponte moventem, suspectum habuisse.'

⁷⁶ See in this thesis, Ch. 1, pp. 33-4.

⁷⁷ Van Helmont, 'Logica inutilis', §§ 10-11, in *Ortus medicinae*, p. 41: 'Itaque hoc in loco inquirendum, quantum veritatis, potestatis, atque utilitatis habeat. Ad me quod attinet, scio, quod omnis disputatio tandem conclusionem pariat; omnis autem conclusio duntaxat opinionem inducat. Imo quod fortissimum Rationcinium, (Syllogisimum vocant,) nullam prosus unquam scientiam dederit, aut dare sit aptum. Quare minus ex alia quacunq[ue] argumenti formula expectanda erit scientia.'

knowledge at all, or is fit to give it. Wherefore knowledge shall be lesse to be expected from any other small form of argument whatsoever.⁷⁸

Chandler translated Van Helmont's *veritas*, *potestas* and *utilitas* – crucial notions in his view of knowledge and nature – with 'truth', 'power' and 'profit', Foote with 'truth', 'efficacy' and 'utility'. Again, it is here significant to note how Chandler and Foote rendered Van Helmont's *scientia* with, respectively, 'knowledge' and 'science':

Therefore here we are to enquire, how much truth, efficacy, and utility it hath. For my part, I know, that all disputation produceth att length a conclusion; but every conclusion brings forth only an opinion. Yea that even the most stronge arguinge (which they call a Syllogisme) never afforded us the least science, or was felt to afforde it; wherefore much less is science to be expected from any other mode or fashion of argumentation.⁷⁹

If the use of logic was so problematic for Van Helmont, and logically built-up arguments should not be seen as conducive to the truth, how then should one interpret the text he wrote about logic? It was Van Helmont himself who asked this question, which exhibits a reflectivity at work within his own use of words – something which is not present when he speaks about the use of language.⁸⁰ However, this reflexive moment on the use of logic and his own logical arguments touches upon his theory of translation and the use of language as a vehicle to express the truth. The uselessness of logic is shown in the fact that to be able to follow the argument, one already needs to have the understanding of the terms (*cognitio terminorum*), which means that one cannot learn anything new through this. And therefore logic is no science, but only utterances (*dictiones*, in Latin; 'words' and 'sayings', to use Chandler's and Foote's translations, respectively).⁸¹

It is once again Jean le Conte who is the odd one out when compared with the other translators. His chapter 'La logique est inutile pour inventer et donner de la science', is an excerpt of Van Helmont's chapter in Latin, but ordered differently and with the omission of many crucial parts. Le Conte's translation focuses on the contrast between Aristotle and Van Helmont, and incorporates all the quotations by Aristotle that are included in the original text. Also included in Le Conte's version are the arguments given by Van Helmont to reject logic, and hence the ability to learn something new. Van Helmont's example of the alchemical trial as a source of experimental knowledge based on the senses is therefore lost. It is, however, the same Jean le

⁷⁸ Van Helmont, 'Logick is unprofitable', §§ 9-10, in *Oriatrike*, tr. by J. Chandler, p. 38.

⁷⁹ Van Helmont, 'Logicke is useless', §§ 9-10, in BL, MS Sloane 629, tr. by D. Foote, f. 210^r.

⁸⁰ Van Helmont, 'Logica inutilis', § 22, in *Ortus medicinae*, p. 43: 'Quoniam est impossibile noscere an praemissae sint verae, apparentes, vel falsae, nisi terminorum cognitio prius in nobis fuerit, cum omni notitia adaequationis, et confirmationis illorum.'

⁸¹ *Ibid.*, § 23, in *Ortus medicinae*, p. 43: 'Denique nec quidquid sic sit, ullatenus ad scientias spectat: sed tantum ad dictiones.'; Van Helmont, 'Logick is unprofitable', § 23, in *Oriatrike*, tr. by J. Chandler, p. 40; Van Helmont, 'Logicke is useless', § 23, in BL, MS Sloane 629, tr. by D. Foote, f. 211^v.

Conte who ten years after his translation published a short work in Latin on the chemical preparation of drugs.⁸² We do not know whether he had already planned a separate book on Van Helmont's achievements in matter of chemistry, but it is clear that Le Conte extracted chemical preparations from his translation. His *Oeuvres de J. B. van Helmont* does include the other important way of obtaining knowledge according to Van Helmont, namely, through divine light.⁸³ It leads to a situation, however, in which the whole chapter is less of a 'new philosophy' – a section of the text which is entirely omitted in the Le Conte's translation – than a comparison with and refutation of Aristotle, which present Van Helmont once more as the one who breaks down the old structures.⁸⁴ Even though the chapter does not have the same methodological character in French as it has in Latin, Le Conte still puts it as the second chapter within the completed work, a position which, in any case, still seems to be relevant.

For Christian Knorr von Rosenroth the exposition of the uselessness of logic became Chapter 7, and therefore within the first fifty pages of his almost 1300-page long translation of the *Ortus medicinae*, which means it is still placed at the beginning of the work, following Van Helmont's original order. Knorr added short sentences from the *Dageraed* to his translation, which can be recognized in the footnote as the sentence between brackets, preceded by an 'N' – one of his ways to signify an addition from Dutch.⁸⁵ In this chapter, too, as in the one concerning the 'hunting' for knowledge, Knorr felt the need to include technical logical terms in Latin. Even the title of the chapter 'Daß die Vernunft-Kunst (Logica) nichts tauge' ('That Logic Is no Good') contains a Latin term. In translating the paragraph in which Van Helmont sets out the basic rules of logic, Knorr adds the following comment: 'and now I shall also begin with the art of words. The so called logic, or art of reason (which should better be "art of words"), is divided in three parts.'⁸⁶ The word he uses for logic in German – *Wort-Kunst* – and the fact that

⁸² Jean le Conte, *Clavis hermetica seu metallorum mineraliumque legitima solutio*, Lyon 1680. Printed 10 years after his translation, with the same publishers in Lyon.

⁸³ Van Helmont, 'La Logique est inutile pour inventer et donner de la science', in *Les Oeuvres de J. B. van Helmont*, tr. by J. Le Conte, p. 45: 'Les Sciences sont données de Dieu qui est la vraye Sapience, et le Pere des lumieres.' Compare with Van Helmont, 'Logica inutilis', § 24, in *Ortus medicinae*, p. 43: 'Scientias autem, sola dat sapientia, filius sempiterni Patris luminum.'

⁸⁴ He includes the second passages used in fn. 72 and further: Van Helmont, 'La logique est inutile', in *Les Oeuvres de J. B. van Helmont*, tr. by J. Le Conte, p. 43: 'Toute dispute forme une conclusion, et toute conclusion une opinion, et le raisonnement le plus fort qui est apelé sylogisme, n'a jamais donné aucune science ni été propre d'en donner, et a plus forte raison il n'en faut point esperer des autres formules de l'argument.'

⁸⁵ Van Helmont, 'Der siebende Tractat: Daß die Vernunft-Kunst (Logica) nichts tauge', § 3, in *Aufgang*, tr. by Knorr von Rosenroth, p. 43: 'Denn hab ich wollen den rechten Grund legen zu einer neuen Philosophie oder Natur-Lehre; so hab ich schier alles müssen über einen Hauffen werffen, was man vorhin gelehret. Und habe viel müssen wieder anders setzen, oder gar aufs neu stellen. (N. Und es ist nöthig wo man viel Dinges nicht weiß, daß man viel ersetze, viel verbessere und interweise;) welches nicht ein jeder mit gleichem Gemüth aufnehmen wird.' The references from the *Dageraed* are from the first page of the first chapter ('Eerste Pael: Van tijdt, duringe, oft weringe'), while there is no chapter on the uselessness of logic in Dutch, nor any other methodology for a new philosophy.

⁸⁶ Van Helmont, 'Der siebende Tractat: Daß die Vernunft-Kunst (Logica) nichts tauge', § 5, in *Aufgang*, tr. by Knorr von Rosenroth, p. 44: 'Und nun will ich also den Anfang machen von den Wort-Künsten (Sermocinalia) Die so genannte Logick oder Vernunft-Kunst (so vielmehr Wort-Kunst heissen möchte)

he prefers this over the more common German word *Vernunft-Kunst* sum up how Knorr sympathizes with Van Helmont and the idea that logic is no science but a mere play of words. Also in the second passage on the search for truth in logic, Knorr von Rosenroth explains the Latin *sylogismus* with two German terms, *Schluß-Rede* and *Folg-Schluß*.⁸⁷ His intention to be clear and comprehensible is very dominant throughout the entire translation. At the same time, by adding explanatory comments he manages to make his version more accessible to readers untrained in the jargon of Helmontian philosophy and theology. His more extensive comments are preceded by a heading *Anmerking* ('Comment'), and printed in a different font, but it is especially the short unmarked explanations and comments that colour the translation with Knorr's interpretation.

Conclusions

In this chapter, we have looked at the level of awareness concerning language and translation displayed in the introductions by six of the seven seventeenth-century translators of Van Helmont's works (here it is worth remembering that we do not have an introduction by the hand of Daniel Foote). All six translators felt the need to defend their activity as translators of Van Helmont into their respective vernaculars. In line with Van Helmont's own views, the English and German translators argued that their readers would benefit from vernacular versions of the text, for they would be able to understand the material better. In doing so, they ignored Van Helmont's proviso that a significant amount of truth may be lost through translation. The French translators were not so concerned with their readers or with rendering Latin into French for the sake of achieving more clarity, or at least they did not mention any of this, nor the idea that one should share knowledge with neighbours or countrymen.

We have looked at topics that were part of scholastic learning: the outset of the human mind, and logic, one of three disciplines of the *trivium*, as it was taught at schools. Apart from Van Helmont's new views on these issues, the material and the corresponding vocabulary were well known to seventeenth-century scholars. This means that the translators did not have to worry

besteht in dreyen Stücken: Nemlich wie man ein Ding beschreiben (Definitio); wie man ein Dinge abtheilen (Divisio); und wie man eine Schluß-Rede machen soll (Argumentatio).’ Cfr. Van Helmont, ‘Logica inutilis’, § 5, in *Ortus medicinae*, p. 40: ‘A sermocinalibus ergo exordiar. Constat Logica tribus membris, Definitione nempe, Divisione et Argumentatione.’

⁸⁷ Van Helmont, ‘Der siebende Tractat: Daß die Vernunft-Kunst (Logica) nichts tauge’, § 10, in *Aufgang*, tr. by Knorr von Rosenroth, pp. 44-45: ‘Drumb müssen wir nun hier untersuchen was denn für Warheit, Krafft un Nutzbarkeit darinnen stecke. So viel denn mich belanget so weiß ich diß zwar, daß aus allem Disputiren und Streiten endlich ein Schluß heraus kommt: hingegen aber ein jeder Schluß nichts weiter als eine Meinung nach sich ziehe. Ja ich weiß, daß die stärckeste Schluß-Rede (so bey ihnen ein Sylogismus, das ist ein Folg-Schluß genannt wird:) noch niemals auf der Welt einige Wissenschaftt verursacht, noch auch geschickt sey solche zuwegen zu bringen. Umb so viel weniger denn wird einige Wissenschaftt erwartet weren können von einiger andern Art etwas zu schlüssen.’

about the comprehensibility of the subject matters when it came to terminology, in contrast to the newer medical and alchemical terms we shall be looking at in the next chapter. Nevertheless, we saw that each single translator adopted a different approach. The English and French translators used their terminology confidently in their vernacular languages, and the terms are the same between the different translators. Both the German translators turned to the Latin frequently, by either adding technical terms (Knorr von Rosenroth) or even incorporating entire sentences in Latin (Seyfrid). This leads me to believe that the German translators were worried about the possibility that their audiences might not understand the terminology used in German, and this seems to imply that in Germany at the time texts dealing with logic were mainly read in Latin.

Personal interpretations are also noticeable. Walter Charleton was especially involved with the linguistic endeavour. He defended and praised English as a language suitable for scientific pursuits. As a result, he supported Van Helmont in his plea for the use of the vernacular. John Chandler in his introduction, on the other hand, focused largely on the religious side of Van Helmont and the divine interaction in the obtaining of knowledge, which would agree with Chandler's religious background as a Quaker. Daniel Foote showed with his choice of words that his translation was made in a period in which John Locke's idea of understanding had made inroads into the intellectual culture of the time. Indeed, Foote had himself become friends with Locke, thanks to Francis Mercury. Jean le Conte, representing the French translators in this chapter, cut out the experiments, and the idea of obtaining knowledge through experience, even though his own later publications demonstrate that he was very much aware of how experience served as a source of new knowledge. From his rephrasing and restructuring of the text it seems that he was tailoring his text for an audience that still needed to be persuaded about Van Helmont's worth as an author to be read – an audience educated in the old school, and therefore appreciative of the repeated contradistinctions to and comparisons with the old authorities, such as Aristotle and Hippocrates. We shall encounter Seyfrid again in the next chapter, but we can already note that Christian Knorr von Rosenroth adds his own comments into Van Helmont's texts. Often these comments are marked, but frequently they appear as part of a translation (i.e., invisible, unless the reader compared the German text with the original Latin), commenting on the use of language of Van Helmont, and on the German language.

In this chapter we have analysed the reception of Van Helmont's views on language by his translators, as well as their own articulation of the awareness of language and translation. Did any of the translators express their concern about the loss of truth and knowledge when translating Van Helmont into yet another language? Or did any of the translators comment on Van Helmont's ideas about translation as expressed in his introductions and throughout the *Ortus medicinae* in the form of comments about the power of words, the relationship between

thought and language, between God's Word and the creation, between words and natural objects, between words and images, etc? The translators did not comment on these principles *per se*, but one could argue that in itself a translation is not the right medium for such reflections. Convention dictated that the introduction to a translation should praise the author and the text rather than devalue the translator's efforts with the claim that translations are inferior to the original. As a matter of fact, in their translations the translators implicitly comment on Van Helmont's ideas about language. The manner in which they come up with new vocabulary themselves, by copying him or inventing new words, and the way in which they adapt their translations to their own vernaculars, reveals their responses to Van Helmont's language, which subsequently presents the translations as new texts with the translator as co-author. As we have seen in this chapter, most of the translators opted for a complete assimilation of Van Helmont's works into their own languages. An exception was Knorr von Rosenroth, who decided to display his own awareness of the finer points of translating terminology by including original terms from the *Ortus medicinae* in his text, a practice also employed by the other German translator, Johannes Seyfrid, who will be discussed in the next chapter. The way to express awareness of language as used by Van Helmont is more subtle than presenting translations with an introduction on that topic; at least this is clear.

As we have already seen in Chapter 2, Van Helmont had a very particular relationship to language in those scientific disciplines which were involved in a process of rapid transformation and therefore needed new terminology. In the next chapter we shall discuss how translators rendered parts of Van Helmont's work pertaining to practical knowledge, and whether his use of language in any sense survived the process of translation.

CHAPTER 5: Translating Practice

Whereas Chapter 4 focussed on the translation of an older vocabulary with a long-standing tradition in philosophy, used by Van Helmont in his theoretical treatises, this chapter will discuss various cases in which the effort behind the translation was directed at a newer jargon, as created by Paracelsus and Van Helmont himself. This terminology is often related to forms of scientific practice such as observation, experimentation, and the application of knowledge. Like Chapter 2, the first part of this chapter is dedicated to the translation of three terms: *gas*, *blas*, and *archeus*, whereas the second half of this chapter covers the wider topics of alchemy and the plague.

Gas & Blas

As already seen in Chapter 2, Jan Baptista van Helmont coined the word ‘gas’ in the *Ortus medicinae* and proudly claimed to have both discovered the substance and created the term. He used the words *gas* and *blas* in both Latin and Dutch, and it has already been noted that most translators took over the exact same words in their translations.¹ John Chandler, for instance, kept the word ‘gas’, as is evident from the following quotation:²

because the water which is brought into a vapour by cold, is of another condition, than a vapour raised by heat: therefore by the Licence of a Paradox, for want of a name, I have called that vapour, Gas, being not far severed from the Chaos of the Auntients. In the mean time, it is sufficient for me to know, that Gas, is a far more subtile or fine thing than a vapour, mist, or distilled Oylinesses, although as yet; it be many times thicker than Air. But Gas it self, materially taken; is water as yet masked with the Ferment of composed Bodies.³

Neither Walter Charleton nor Daniel Foote translated any passages discussing the concepts of *gas* and *blas*, which means that Chandler provided the only English rendering on the topic. The absorption of the word ‘gas’ into the English language is still apparent today, and, either directly or indirectly, must have been taken from the *Oriatrike* or the Latin original. While Van Helmont tried to describe a new concept, and distinguish *gas* from similar but different types of substances, the translators had to do justice to the same distinctions. Chandler managed to do

¹ Cf. Chapter 2, p. 68.

² Jan Baptista van Helmont, ‘Progymnasma meteor’, § 29, in *Ortus medicinae*, p. 69: ‘Verum quia in vaporem, per frigus delata, alterius fortis, quam vapor, per calorem, suscitatus. Ideo paradoxo lecentia, in nominis egestate, halitum illum, Gas vocavi, non longe a Chao veterum secretum. Sat mihi interim, sciri, quod Gas, vapore, fuligine, et stillatis oleositatibus, longe sit subtilius, quamquam multoties aere adhuc densius. Materialiter vero ipsum Gas, aquam esse, fermento concretorum larvatam adhuc.’; Van Helmont, ‘The Essay of a Meteor’, § 27, in *Oriatrike, or Physick Refined*, tr. by J. Chandler, London 1662, p. 69.

³ Van Helmont, ‘The Essay of a Meteor’, §§ 28-9, in *Oriatrike*, tr. by J. Chandler, p. 69.

so with words like ‘vapour, mist, or distilled Oylinesses’ (*vapor, fuligo, et stillatae oleositates*); Knorr von Rosenroth, as we shall see shortly, gave more options.

As we may remember from Chapter 2, in the passage below, here translated by Chandler, a combination of new terms is used by Van Helmont to explain how his theory of *gas* and *blas* (in this case the *blas* of the stars, in contrast to human *blas*) related to the concept of *peroledes*, a Paracelsian term.⁴

The Air hath therefore its grounds or soils, no lesse than the Earth, which the *Adeptists* do call *Peroledes*. Therefore the invisible Gas is entertained in the various Beds or Pavements of the Air, if the Water hath its depths of its Gulfs; its own Gates are in the *Peroledes*, which skilfull men have called the Floud-gates and folding doores of Heaven. For neither is Gas falling down into the place of Clouds, carried out of the depth of Heaven without its directer Blas. Yea it falls not down but thorow ordained Pavements and folding-doores. For all the folding-doores do not promiscuously lay open to the Planets: but all the Planets in particular, are by their own Blas, the Key-keepers to their own *Peroledes*. Which thing I submit to be examined by Astrologers that are the shewers or disclosers of Meteors, and I promise that they shall finde out a rich substance.⁵

What we see here, is that Chandler is directly copying the terminology of Van Helmont: *peroledi*, *adepts*, *gas* and *blas*. The explanatory descriptions highlight Chandler’s interpretations and inventiveness. He speaks of ‘beds or pavements of the air’, as translations for *aeris strata*, and the ‘floud-gates and folding doores of Heaven’ are originally *cataractae coeli, et valvae*. Judging from the way in which Chandler handled these complex cases of translation, we can infer that Chandler decided to stick to the original vocabulary when it came to actual specific terminology, and to be more creative when he had to clarify the meaning of particularly elusive notions.

Jean le Conte is the only French translator who included the topics *gas* and *blas* in his translation. He did so in the first part, dedicated to the principles of *physicke* (‘Des principes de physique’). There he introduces *gas* twice, in Chapter 13: ‘L’anatomie des vapeurs de l’eau séparée par le firmament: sont la cause materiele des meteores’ (‘The Anatomy of Water Vapours, Separated by the Heavens: They Are the Material Cause of the Meteors’), and Chapter 14: ‘Il est absolument necessaire qu’il y ait du vuide en la nature’ (‘It Is Absolutely Necessary that There

⁴ Van Helmont, ‘Gas aquae’, § 25, in *Ortus medicinae*, p. 74: ‘Habet ergo aer suos, non minus quam terra, fundos, quos Adepti vocant Peroledos. Invisibile itaque Gas variis aeris stratis hospitatur, si aquae sua inter barathra, suae voragine, suae portae sunt in Peroledis, quas periti cataractas coeli et valvas dixerunt. Neque enim Gas, ex profunditate coeli decidens in locum nubium sine directore Blas fertur. Imo non nisi per strata atque ordinatas valvas decedit.’

⁵ Van Helmont, ‘The Gas of the Water’, §§ 23-6, in *Oriatrike*, tr. by J. Chandler, p. 74.

Exists a Vacuum in Nature’).⁶ The next chapter even promises a history of the ‘gas’ (‘avec l’Histoire de Gas’); whether this refers to the term or the substance itself, the promise is not fulfilled and Le Conte fails to give an actual etymological explanation or a literal translation of any of the passages on *gas* in Van Helmont’s original.⁷ Le Conte wrote two chapters on *blas*, the first one as the final chapter in the section on the principles of *physicke*, on the *blas* of the stars (‘Du Blas Meteorisme’) and human *blas* (‘Du Blas humain ou du mouvement du coeur et des Arteres’), as part of section on the soul of life (‘Traité de l’Esprit de vie’). He managed to keep his descriptions of *gas* and *blas* entirely separate from each other, and therefore did not translate the above passage which connects *gas* and *blas*, although he did mention the ‘peroledes’ in the section on *blas*.⁸ To be sure, Le Conte acknowledged Van Helmont’s invention of words, and used them unchanged in French.

The German translator Christian Knorr von Rosenroth, by contrast, took a number of different decisions in confronting the challenges of translating Van Helmont. As he turned the whole *Ortus medicinae* into German, he did translate both passages as discussed above, and even included several lines from the *Dageraed*.⁹ What immediately attracts our attention is Knorr’s keenness to find words for ‘gas’, which, according to Knorr, ‘in German we call a water-spirit (*Wasser-Geist*)’. Instead of copying Van Helmont’s new term, he used *Wasser-Geist* in the main text, often followed by *gas* in brackets. There are occasions where he even translated *gas* with another term, such as *Dampff* (‘vapour’), but still followed by *gas* in brackets.¹⁰ At the same time he explained that ‘Gas is much subtler than the general vapour of soot, smoke or the distilled oiliness’ (*Wasser-Geist (Gas) viel subtiler sey als der gemeine Dampff der Ruß oder Rauch, und die distillirten Oeligkeiten*).¹¹ In this sentence, he used *Dampff* (‘vapour’) to contrast it with *gas*, which might well have caused some misunderstandings among his German readers. In the following passage, too, Knorr came up with his own translations: *Adepti* are translated as *Kunst-Besitzern* (‘possessors of

⁶ Van Helmont, ‘L’anatomie des vapeurs de l’eau séparée par le firmament: sont la cause materiele des Meteores’, in *Les Oeuvres de J. B. van Helmont*, tr. by J. Le Conte, p. 89: ‘Telement que si le froid ne deseichoit pas le soulfre de l’eau en son exterior, et ne le divisoit pas en cette derniere subtilité que l’Auteur nomme gas.’; and id., ‘Il est absolument necessaire qu’il y ait du vuide en la nature’, p. 93: ‘Que la fumée est une vapeur nommée (d’un nouveau nom) Gas.’

⁷ Ibid., ‘Les Corps qu’on a crû être mixtes et composez des quatre elements, tirent leur matiere de la seule eau, et retournent finalement en pure eau insipide et elementaire avec l’Histoire du Gas’, pp. 96-102.

⁸ Ibid., ‘Du Blas Meteorisme’, pp. 137-9.

⁹ Van Helmont, ‘Der dreyzehende Tractat: Eine Grund-Handlung von Meteoren oder Lufft-Wercken’, § 29, in *Aufgang der Artzney-Kunst*, tr. by Knorr von Rosenroth, p. 108: ‘Weil aber das Wasser, wenn es durch die Kälte zu einem Dunst wird, gantz einer andern Art ist, als der Dunst, der von der Wärme in die Höhe getrieben wird; so hab ich mir bey dieser ungewöhnlichen Sache die Freyheit genommen, und diesen Dampff aus Mangel eines andern Namens ein *Gas* genennet; weil kein grosser Unterscheid ist zwischen demselben, und zwischen dem Grund-Wesen, welches die Alten Chaos genennet: (Auf deutsch nennen wir es einen Wasser-Geist). Unterdessen ist mir schon genug daß man weiß daß dieser Wasser-Geist (*Gas*) viel subtiler sey als der gemeine Dampff, der Ruß oder Rauch, und die distillirten Oeligkeiten; wiewol er noch viel dicker ist derselbe Wasser-Geist an sich noch Wasser und darzu noch verkappet mit dem Urheb der Gewächse.’

¹⁰ Ibid., § 30, p. 108.

¹¹ Cf. fn. 9.

the art'), and *blas* as *Sternen-Witterung* ('atmospheric condition of the stars').¹² *Peroledi* receive their own explanation in brackets 'which just means according to the old word *Werelt* or *Welt*, namely ledge or pocket' – an additional vernacular name is *Lufft-Böden* ('air layers', or literally 'floors').¹³ Van Helmont's *cataractae vel valvae* are translated as 'windows, or better sluices and beams of the heavens' (*die Fenster, oder vielmehr Schleusen und Geschwölle des Himmels*), as always with the Latin terms added between brackets. Knorr took the translation another step further by adding several sentences from the *Dageraed*. From all these additional translations and explanations, we can assume that Knorr von Rosenroth wished to make Van Helmont's text more understandable for a German audience. However, in contrast to the texts discussed in Chapter 4, Knorr could not resort to a better known vocabulary, as there was none. He had therefore to come up with explanations: words like *Schleusen*, which was commonly used for water-locks, were given new meanings – in this case of 'doors' in the *peroledi*, the layers in the air. This practice of Knorr von Rosenroth presents a translator who gave a strong personal stamp on his translation, and who is constantly mediating in the communication between Van Helmont and the (German) reader. He sometimes gives several translations for one word in Latin, which readers would not have noticed as his own input. However, in other cases he includes comments such as 'in German we call this...', which allow him to step forward and be visible for the reader.

Chandler, Le Conte and Knorr von Rosenroth undertook their task of translating Van Helmont into English, French and German by following different approaches. Chandler preferred to remain as close to the original as he could, resorting to a certain level of analogical reasoning when both notions and vocabulary were at their most difficult. Le Conte chose the solution of paraphrasing and summarizing Van Helmont's text in many situations, and, by referring to the author in the third person, created a distance between the original and his version. Knorr, finally, decided to render his translation more accessible to German readers by inserting more words and sometimes notes of comment into the translated text.

¹² Van Helmont, 'Der vierzehende Tractat: Von dem subtilsten Dunst des Wassers', §§ 25-6, in *Aufgang*, tr. by Knorr von Rosenroth, p. 113: 'Und hat demnach die Lufft eben so wol als die Erde gleichsam gewisse Gründe übereinander, welche von dern Kunst-Besitzern *Peroledi*, (welches schier lautet als das alte Wort *Werelt* oder *Welt*, das ist, Absätze oder Fächer) genannt werden. Und der unsichtbare Wasser-Geist (*Gas*) hat sein Quartir in mancherley Lagen oder Böden so die lufft übereinander hat. Gleich wie aber das Wasser seine Strudel oder Würbel und Schlünde oder Ausgänge hat; (N. wie zwischen Rost und Kouffoet in Gotland eine solche Tieffe aller Wasser ist) so sind auch gewisse Thore oder Oeffnungen vor diese Lufft-Böden (*Peroledi*) vorhanden, welche die Verständige die Fenster, oder vielmehr Schleusen und Geschwölle (*Cataractas vel Valvas*) des Himmels nennen. Denn wenn der subtile Wasser-Geist (*Gas*) aus der Tieffe des Himels herab fället in die Gegend der Wolcken, (N. in der Reiffe der Tage); so geschieht solches nicht ohne den Trieb der Sternen-Witterung (*Blas*). Und fährt derselbe darzu nicht anders herab als durch gewisse und gewöhnliche Thore und Oeffnungen: (N. Und rinnet allda stracks in ein Wasser). Denn nicht vor alle Planeten stehen durchgehends alle diese Thüren zugleich offen miteinander: Sondern ein jeder hat durch seine Witterung (*Blas*) einen Schlüssel zu seinem eignen Lufft-Boden (*Peroledus*). Welches ich den Stern-Künstlern die von dem Gewitter schreiben pflegen, ferner zu untersuchen übergebe.'

¹³ *Ibid.*

Did the text become clearer as a result of these different methods of translating? And how much was Van Helmont's original intention changed by these interventions? In an attempt to answer these questions, it is necessary to examine in a closer way specific material provided by the translators. In the next section, we shall be able to include more different translators, while examining the translation of the term *archeus*, one of Van Helmont's major medical concepts.

Archeus

We shall use the same passage that I have already referred to in Chapter 2 as a linguistic specimen to illustrate Van Helmont's concept of disease and the role of the *archeus*. Given its relevance in the system of Helmontian medicine, I shall use it again to contrast the different versions of the European translators examined so far.¹⁴

John Chandler translated the passage in the chapter entitled 'The Birth or Original of a Disease Image':

A Disease therefore is a certain Being, bred, after that a certain hurtful strange power hath violated the vital Beginning, and hath pierced the faculty hereof, and by piercing hath stirred up the Archeus unto Indignation, Fury, Fear, etc. To wit, the anguish, and troubles of which perturbations do by imagining, stir up an Idea co-like unto themselves, and a due Image: Indeed that Image is readily stamped, expressed, and sealed in the Archeus, and being cloathed with him, a Disease doth presently enter on the stage, being indeed composed of an Archeal Body, and an efficient Idea: For the Archeus produceth a damage into himself, the which when he hath once admitted, he straightway also afterwards yields, flees, or is alienated, or dethroned, or defiled through the importunity thereof, and is constrained to undergo a strange government, and domestically to sustain a civil War raised up on himself; indeed such a strange Image, is materially imprinted, and arising out of the Archeus: A true Disease Being I say, which is called a Disease.¹⁵

¹⁴ Van Helmont, 'Ortus imaginis morbosae', § 2, in *Ortus medicinae*, pp. 523-4: 'Est itaque morbus, ens quoddam natum, postquam nocua quaedam potestas peregrina violaverit vitale initium, hujusque vim penetraverit, ac penetrando excitaverit Archeum ad indignationem, furorem, metum &c., quarum scilicet perturbationum anxietates, ac molestiae, ideam sibi consimilem, imagenemque imaginando debitam, excitant. Promte scilicet ista imago cuditur, exprimitur, sigillaturque in Archeo; eoque vestita, mox morbus in scenam intrat, corpore scilicet archeali, & efficiente idea, constructus. Archeus nimirum sibi noxam parit, quam ubi semel admisit, mox dein quoque importunitate illius cedit, fugit, alienaturve, aut deturbatur, vel inquinatur, cogiturque subire alienum imperium domesticeque sibi excitatum bellum civile, sustinere. Est nimirum Icon aliena ejusmodi, materialiter impressa, surgensque ex Archeo. Verum inquam ens morbificum, quod morbus appellatur.'

¹⁵ Van Helmont, 'The Birth or Original of a Disease Image', § 2, in *Oriatrike*, tr. by J. Chandler, p. 552.

Chandler gives a comprehensive description in English of the process through which an *archeus* generates a material entity, that is a disease, as a reaction to its perception of being threatened by some external danger. His re-use of the term *archeus* represents a decision in line with his adoption of the Helmontian terms *gas* and *blas*. Nevertheless, Chandler introduces the concept of *archeus* in the treatise ‘Archeus faber’ as ‘chief or master-workman’, and started using the term *archeus* only after introducing the concept. This shows that Chandler, too, sometimes needs to explain the terminology by translating the term into English. This also happens with Knorr von Rosenroth, who in this case translates the technical terminology into German.¹⁶ In the section we are discussing here, Knorr translates *archeus* as *Lebens-Geist* (‘spirit of life’), which shows the importance of the concept – slightly more understated in Chandler’s translation. Le Conte, too, identifies the *archeus* as the *esprit de vie* (‘the spirit of life’).¹⁷ Knorr uses *Lebens-Geist* in the passage above, but varies it with several terms throughout the entire *Aufgang*, including ‘sämlichen Geist oder inwendigen Werck-Meister’ (‘spirit of seed or internal work master’) and *Regiments-Geist* (‘spirit of the regiment’).¹⁸ The concept and word *archeus* are both derived from Paracelsus, who had developed a theory in which the *archeus* was directly related to ‘Vulcan’, a force similar to the *archeus*, in that it was the work-master and force in the world. In contrast to the *archeus*, a Vulcan was deemed to operate outside a human body, leading every natural creature to its ultimate form.¹⁹ Paracelsus himself did not use the term *Werkmeister* or any of the other German terms invoked by Knorr von Rosenroth for that matter. He resorted, however, to similar terms to convey the same ideas, such as *fabricator und werckman aller dingen* (‘the manufacturer and work man of all things’).²⁰ The word ‘work-master’ is commonly used in connection to Vulcan, by Paracelsus as well as his followers, but not when the *archeus* is involved, although Paracelsus had

¹⁶ Van Helmont, ‘Das achte Capitel: Von dem Ursprung des Kranckmachenden Bildes’, § 2, in *Aufgang*, tr. by Knorr von Rosenroth, p. 974: ‘Und ist demnach die Kranckheit ein gewisses gezeugtes Wesen, wenn nemlich einige schädliche frembde Krafft den Lebens-Ursprung beleidiget, und dessen Vermögen durchdringet; und vermittelst dieses Durchdringens den Lebens-Geist (*Archeum*) zu Unwillen zur Wut, zur Furcht und dergleichen reizet; da denn die Aengsten und Beschwerissen dieser Verwirrungen eine gewisse ihnen gleichförmige Gestalt und ein zu solcher Einbildung gehöriges Bild erwecken. Nemlich ein solches Bild wird gar bald formiret und in den Lebens-Geist eingedruckt und gepreget: Und wenn solches mit diesem überkleidet ist, so tritt alsobald die Kranckheit auf den Plan, welche zusammen gesetzt ist von ihrem aus dem Lebens-Geist genommenen Körper und von dem gedachten Bilde, als ihrer wückenden Ursache. Denn der Lebens-Geist gebietet ihm selber seinen Schaden, und wenn er denselben einmal empfangen so beginnet er bald darauf der Ungestümigkeit desselben zu weichen, zu fliehen, oder er wird gantz erwirret oder umbgeworffen oder befleckt, und wird gezwungen sich frembder Herschafft zu untergeben, und einen einheimischen in ihm erweckten Bürger-Krieg auszustehen. Nemlich dieses frembde solcher Gestalt materialischer Weise eingedruckte und aus dem Lebens-Geist entehende Bild, das ist das wahrhaftige kranckmachende Wesen was man eine Kranckheit nennet.’

¹⁷ Van Helmont, ‘Traité de l’Esprit de vie nommé Archée: Chapitre I’, in *Les Oeuvres de J. B. van Helmont*, tr. by J. Le Conte, p. 183-4: ‘Nous avons suffisamen parlé en son lieu de l’Archée ou esprit seminal, et montré comme c’étoit lui qui étoit l’Agent de toutes les actions qui se pratiquent dans les semences.’

¹⁸ Van Helmont, ‘Das sechste Tractat: Von dem Archeus oder (N. dem inwendigen Werck-Meister der Samen)’, in *Aufgang*, tr. by Knorr von Rosenroth, pp. 40-2.

¹⁹ W. Pagel, *Paracelsus: An Introduction to Philosophical Medicine in the Era of the Renaissance*, Basel 1958, pp. 105-6; and T. P. Sherlock, ‘The Chemical Work of Paracelsus’, in *Ambix* III (1948), pp. 41-3.

²⁰ Martin Müller, *Registerband* to Paracelsus, *Sämtliche Werke*, Einsiedeln 1960, p. 16 (‘Archeus’), and p. 268 (‘Vulcanus’).

clearly suggested that the *archeus* was a form of ‘internal’ Vulcan, acting inside natural bodies.²¹ Van Helmont employed the term *werck-meester* (‘work master’) in Dutch, which might have been already a common vernacular word for *archeus*, as Chandler translated *archeus* with ‘work-master’, then followed by Knorr in German. Chandler was therefore the first to use this term in the Helmontian literature, as the *Dageraad* had not been published yet.

Jean le Conte discusses the *archeus* and the origin of disease in a separate part of his translation, the treatise on diseases (‘*Traité des Maladies*’). In the footnote I have included a rather long passage from Le Conte’s text in which he introduces the definition of a disease, as it was presented in the *Ortus medicinae*.²² The passage shows how Le Conte summarizes Van Helmont’s ideas, while keeping the various concepts separate. The treatise on diseases includes a discussion and definition of the *archeus*, and leaves out any reference to *gas* and *blas*.

Another example illustrating the use and translation of *archeus* is taken from Van Helmont’s 1642 treatise on fevers (‘*Februm doctrina inaudita*’, ‘A New Theory of Fevers’), in which he had already explained that the *archeus* was responsible for regulating the internal heat of the body. In line with this conception of the *archeus*, Van Helmont had criticized scholastic and traditional doctors for treating fevers without going to the ‘root’, i.e., the cause of the problem.²³ In Chandler’s translation, this argument reads as follows:

To wit, they apply their remedies unto the effect, but not unto the cause. For truly the heat of Fevers is kindled in the Archeus which maketh the assault, and the root of the Fevers is the peccant matter it self. They have regard therefore, only unto the taking

²¹ See for example Paracelsus, ‘*Labyrinthus medicorum errantium*, Ch. 5 (‘*Von dem Buch der alchimie, wie on dasselbig der arzt kein arzt sein mag*’), in *Sämtliche Werke, 1. Abteilung*, ed. by Karl Sudhoff, 14 vols, Munich 1922-33, XI, pp. 186-90.

²² Van Helmont, ‘*Traité des Maladies*: Ch. 1 (‘*L’Essence et la nature des Maladies a été ignorée iusqu’à present, aussi bien que leurs causes tant materiele qu’efficiente*’), in *Les Oeuvres de J. B. van Helmont*, tr. by J. Le Conte, p. 244: ‘*Les maladies different des autres creatures en ce que les creatures de la premiere constitution ont leur propre existence en elles-même; mais les maladies ne peuvent pas subsister hors de nous, veu qu’elles procedent comme de nôtre principe vital et constitutif; c’est pourquoy l’Archée et la maladie se penetrent l’un l’autre, parce qu’ils ont entr’eux un symbole materiel: mais comme les Ecoles avoient pris garde que les maladies (comme nous avons déjà dit) n’étoient jamais que dedans, nous, elles ont crû que nôtre corps étoit le sujet d’inhesion des maladies, et consequemment que les maladies n’étoient que des accidens suscitez par une intemperie elementaire, et qu’il les falloit combattre par la chaleur et par la froidure; étant ainsi deceuës et persuadées, elles ont imaginé que la cause morbifique étoit externe au respect du corps humain, ou à l’égard de l’oeconomie vitale, et ne se sont jamais advisées qu’il deût être bien plus convenable de supposer l’esprit Archeal (en la nature et au mouvement) pour les maladies, entant qu’il est le principe efficient du mouvement et de la sensation, qui est immediatement et prochainemet affecté par les choses nuisibles; et que cette cause occasionelle et l’Archée se touchoient en un même point, d’où naît la maladie.*’

²³ Van Helmont, *Tractatus de febribus*, Ch. 1 (‘*Definitio febris Veterum examinatur*’), § 19, in *Opuscula medica inaudita*, p. 96-7: ‘*Applicant nempe sua remedia ad posterius, non autem ad prius. Siquidem calor februm, est accensus in impetum faciente Archeo: et radix februm est ipsa materia peccans. Respicitur calor februm, est tantum ad ablationem effectus consequentis, et resultantis ex positione radicis illius, cujus ergo Archeus non quidem a radice accenditur; sed a calore aliunde hausto. Dum nimirum seipsum accendit, propria thymosi, et calore suo ad gradum, supra exigentiam deducto, in quo totus est molestus, quatenus supra suae exigentiae amplitudinem est delatus.*’

away of the effect following upon, and resulting from the placing of that root, for the sake whereof, the Archeus is enflamed not indeed by the root, but by the heat drawn from elsewhere, while as indeed he enflames himself by a proper animosity, and by his own heat being beyond a requirance extended unto a degree, wherein he is wholly troublesome, as he is enlarged beyond the amplenesse of his own necessity.²⁴

One of Daniel Foote's undated manuscripts in the Sloane collection contains a full translation of Van Helmont's treatise on the nature and treatment of fevers. In this case we can therefore compare Foote's and Chandler's versions using the same excerpt:²⁵

For they apply their remedies to the hender-part or branch, and not to the former part or roote of the disease. For in truth the heate of feavers is kindled in the raging Archeus: and the roote of feavers is the very peccant matter itselfe. They therefore regarde only the takinge away the effect which followeth and resulteth from the position of the roote itselfe; for which cause, the Archeus is incensed not indeede from the roote, but from the heate which is derived from elsewhere: viz: when the Archeus enkindleth himselfe by his own proper passion, and his own heate blown up to an undue degree, in which he is all on fire as he is enraged above the just demensions of his temper.

As is apparent, the two English translators rely on very similar vocabulary. *Archeus* is by now treated as an ordinary English term. Even though Van Helmont published this treatise before his death, it was read as a part of the *Ortus medicinae*, in which it was included as a section in the second volume. This meant that the book on fevers, in which the *archeus* plays such an important role, would probably have been read after the term had been repeatedly employed throughout the volume. The last two sentences in the selected excerpt leave some more room for interpretation, and also for confusion. Explaining that the heat of fevers comes from the *archeus* and, as a material product of the 'archeal' imagination, becomes the peccant matter (i.e., diseased matter or, in the Latin original: *materia peccans*) itself, Chandler and Foote write that the *archeus* heats up itself due to 'animosity' or 'passion' (*thymosus*), these being the versions chosen by them. Abraham Bauda translates *thymosus* as *commotion* ('shock'), and Knorr von Rosenroth as *Zorn* ('rage'). All translators try to convey an emotion which elevated the *archeus* from pure materiality to a being that leads, works, guards and, in this case, causes fever inflammations. Also the sentence in which Van Helmont demonstrates that the *archeus* heats up to the extent that it is 'above the range of its own pressing needs' (*supra suae exigentiae amplitudinem*), yields different translations. This is to show that apart from terminological questions, translation of

²⁴ Van Helmont, 'A Treatise of Fevers', Ch. 1 ('The definition of the Fever of the Ancients, is examined'), § 18-9, in *Oriatrike*, tr. by J. Chandler, p. 937.

²⁵ Van Helmont, 'A Treatise concerninge Feavers, Ch. 1 ('Wherein the definition of feavers accordinge to the Auncients is examined'), § 19, in BL, Sloane MS 630, tr. by D. Foote, f. 35^r.

new ideas can lead to difficulties as well. In this case Foote ascribes a ‘temper’ to the *archeus*, whereas Chandler speaks of a ‘necessity’. In both cases the source is the term *exigentia*, which can be translated as ‘needs’ or ‘requirements’. The differences indicate that divergent images of the *archeus* are at stake: a more neutral one in Chandler’s case, or as an entity with passion and a temper in Foote’s version.

Abraham Bauda, the first French translator, rendered the entire treatise on fevers into French, and, when it came to the *archeus*, he also used the French word *archée* as done by his colleague Le Conte, although they were not working in the same place.²⁶ Bauda’s corrections for the (never published) second edition of his book, available in the form of annotations, demonstrate that he was not satisfied with the way he had translated *exigentia*.²⁷ He omitted the entire last part of the sentence, which, with his addition of ‘au malade’ to the previous part of the sentence, provides a rather different reading of the sentence and introduces a possible connection with an actual ill person or patient (*malade*), something that rarely occurs in Van Helmont’s own texts.

Knorr von Rosenroth continued making use of German terms, in this case *Samgeist* followed by *archeus* within brackets.²⁸ The word *exigentia*, which occurs twice with a slightly different meaning in this short passage, is elegantly solved by translating it first with *Noth* (‘need’ or ‘neediness’) and subsequently with *Nothdurfft* (‘pressing need’). Knorr managed to render Van Helmont’s Latin in such a way that he remained close to the text and vocabulary of Van Helmont, while preserving the original meaning.

To summarize what I have been arguing so far with respect to the various ways in which Van Helmont’s translators handled the word *archeus*, it is evident that the word in question was copied into all languages, sometimes in a vernacularized form (*archée* in French, by Le Conte and Bauda), sometimes by adding a number of vernacular qualifiers, as in the case of Knorr von Rosenroth. It has also become clear from the discussion of the last example that descriptions

²⁶ Van Helmont, ‘Traité des fiebres, Ch. 1 (‘Examen de la definition de la fievre selon les anciens’), § 8, in *Doctrine nouvelle touchant les fiebres*, tr. by A. Bauda, Sedan [1652], pp. 25-6: ‘Ils appliquent donc leurs remedes à ce qui suit, et non pas à la premiere cause d’icelle: veu que la chaleur des fiebres est allumee en l’Archee, qui cause les mounemens; et que la racine des fiebres est la matiere mesme pecante. Ils visent donc seulement à retrancher l’effet qui suit et resulte de la racine the la fievre, à l’occasion de laquelle l’Archee s’enflamme par une chaleur, cependant qu’il n’a pas d’elle, mais qu’il tire d’ailleurs. Car c’est l’Archee qui s’enflamme soy mesme par sa propre commotion, et quie esleve sa chaleur à un degré au dessus de l’ordinaire, en quoi il cause de la peine et de l’incommodité au malade, estant eslevé au dessus de sa nature et son estat ordinaire.’

²⁷ *Ibid.*, p. 26: ‘estant eslevé au dessus de sa nature et son estat ordinaire’ is crossed out altogether.

²⁸ Van Helmont, ‘Von den Fiebern, Erster Capitel (‘Darinnen untersucht wird wie die Altern das Fieber beschrieben’), § 19, in *Aufgang*, tr. by Knorr von Rosenroth, p. 301: ‘Denn die wenden ihre Mittel auf das nachgängige und nit auf das vorgängige. Dann die Hitze des Fiebers ist angezündet in dem Bewegung-machenden Sam-Geiste (Archeus) und die Wurzel der Fieber ist die schädliche Materie selber. Und also sehen sie nur auf die Abthuung der erfolgten Würckung so da aus der dahin gesetzten gedachten Wurtzel entspringet und um deser Willen der Samgeist (Archeus) entzündet wird, nit zwar von der Wurtzel, sondern von einer anderswoher genommenen Hitze: In dem er sich nemlich selber entzündet aus eignem Zorn, weil er seine Wärme höher treibet als es die Noth erfordert; worüber er denn gantz beschwerlich wird in dem er sich über die Weite der gewöhnlichen Nothdurfft treiben läst.’

introduced to illustrate a new concept such as *archeus* generate a certain amount of exegetical work due to the complex nature of Van Helmont's Latin and the use of abstruse notions.

Alchemy

In the next two sections, we shall once more look at two broader topics and discuss alchemy and the plague instead of single terms, starting with recipes for the notorious weapon salve. *De magnetica vulnerum curatione* ('About the Magnetic Healing of Wounds') was Van Helmont's first and most problematic publication, with a serious impact on his life. As already discussed in Chapter 3, with this publication, Van Helmont threw himself (or was thrown, according to his defence) into a heated debate between Rudolf Goclenius (1547-1628) and Jean Roberti (1569-1651), who had both preceded him in publishing on the magnetic cure of wounds.²⁹ Both disputants in this controversy included recipes for the ointment supposed to effect the cure. While Roberti gave Goclenius as its source, Goclenius referred to Paracelsus.³⁰ A recipe for the weapon salve is not included in Van Helmont's treatise. However, he discussed it in some detail and even commented upon a change to Paracelsus's original recipe suggested by Goclenius.³¹ This demonstrates that Van Helmont's treatise was very much a reply to these two previous publications and therefore was not in need of a renewed printing of the recipe. It is, however, not surprising that some thirty years later, following the English translation of the treatise, Walter Charleton included recipes for the weapon salve in 'The Translators Supplement'.³² What is more, Charleton did not only append to his translation a recipe from the *Archidoxis magica* (a work attributed to Paracelsus), but also a recipe by Giambattista della Porta (1535-1615), and one by Oswald Croll (1563-1609), the latter one being his personal favourite.³³ Another thirty years later, it is Knorr von Rosenroth who also includes the recipes of both Paracelsus and Croll in his translations.³⁴

Charleton and Knorr von Rosenroth used Paracelsus's recipes for 'ein wunt salb' and a 'waffensalb' (a wound and a weapon salve). The ingredients for the ointments are the same in all three authors. The natural ones, such as linseed oil and rose oil, and the ones extracted by a human body, such fat and blood, are simply translated. One particular ingredient, though, namely, 'the moss grown on a humane skull, two ounces', received slightly more explanation

²⁹ Rudolf Goclenius, *Tractatus novus de magnetica vulnerum curatione*, Frankfurt 1613; Jean Roberti, *Goclenius Heautontimorumenos [...] ruina*, Luxembourg 1618. See also Chapter 3, pp. 101-2.

³⁰ Roberti, *Goclenius Heautontimorumenos*, pp. 271-2; Goclenius, *Tractatus novus de magnetica vulnerum curatione*, pp. 95-6.

³¹ Van Helmont, 'De magnetica vulnerum curatione', § 3, in *Ortus medicinae*, p. 704.

³² Charleton, 'The Translators Supplement', in *A Ternary of Paradoxes*, London 1650, pp. 105-7.

³³ Paracelsus, *Archidoxis magica*, in *Sämtliche Werke*, XIV, p. 448; Giambattista della Porta, *Magia naturalis*, Hanover 1619, pp. 326-7; Oswald Croll, *Basilica Chymica*, Geneva 1608, pp. 400-12.

³⁴ Knorr von Rosenroth, 'Anhang des funffzehenden Capitels Von der magnetischen Cur der Wunden', § 1, in Van Helmont, *Aufgang*, tr. by Knorr von Rosenroth, pp. 1008-9.

from Paracelsus and Knorr von Rosenroth.³⁵ Paracelsus stated that the skull should have been outside for a while ('mies... auf einem totenschedel, welcher am wetter gelegen ist'); Knorr included the Latin term (*usnea*) for this particular kind of moss, and translated Paracelsus's *am wetter gelegen ist* as 'open air' (*unter freyem Himmel*).³⁶ The quantities used (ounces, drams and quints), are not the same in all texts. Whereas the Paracelsian recipe – according to Charleton 'the same, which our helmont intended, as the observation of every diligent Reader cannot but collect' – did not follow a very complicated procedure, the recipe by Croll on the other hand did.³⁷ The process of cooking the fat of a bear and a boar in red wine for half an hour, the skimming of the fat once it was poured in cold water, the pulverised oven-dried rain worms to be added, etc., is comprehensively translated and described by both Charleton and Knorr von Rosenroth. This demonstrates that also English and German (in addition to Dutch as we saw in Chapter 2) were languages that provided a vocabulary and syntax sufficient for the task of describing practical experiments and recipes.³⁸

Van Helmont was well aware of the opinion that his language tended to be obscure. In his treatise 'On the Stone' ('De lithiasi'), he explains that he received many letters from all over Europe in response to his earlier publication on fevers ('De febribus'). Apparently, one of the recurring comments in those letters was a disappointment about his abstruse language.³⁹ He therefore used the opportunity in his new publication to reveal some of his secrets (*arcana*) and to educate his readers.⁴⁰ The treatise was not only a response to the (now lost) correspondence of his colleagues and admirers, but also contained a specific discussion of chemical matters addressed to Jean Beguin (1550-1620). An apothecary and alchemist, Beguin was the author of a *Tyrocinium chymicum* ('Chemical Apprenticeship', first published anonymously in Paris in 1610 and 1612), designed as a manual in chemistry to his students.⁴¹ Van Helmont's chapter in *De lithiasi* bears the title 'Tyronibus ferculum offert author' ('The author serves a dish to the beginners') and is a direct reference to Beguin's book, a training course in chemistry. Van

³⁵ Charleton, 'The Translators Supplement', in *A Ternary of Paradoxes*, p. 105.

³⁶ Paracelsus, *Archidoxis magica*, p. 448; Knorr von Rosenroth, 'Anhang des funffzehenden Capitels ('Von der magnetischen Cur der Wunden')', § 1, in *Aufgang*, p. 1008.

³⁷ Charleton, 'The Translators Supplement', in *A Ternary of Paradoxes*, p. 106.

³⁸ See Ch. 2, pp. 86-7; and see for another example taken from Van Helmont's *De lithiasi*, Sietske Fransen, 'Johan Baptista van Helmont und die Sprache der Alchemie im 17. Jahrhundert', in *Goldenes Wissen. Die Alchemie - Substanzen, Synthesen, Symbolik*. Exhibition catalogue, Herzog August Bibliothek, Wolfenbüttel 2014, pp. 9-17 [forthcoming, August 2014].

³⁹ Van Helmont, *De lithiasi*, Ch. 8 ('Tyronibus ferculum offert author'), § 1, in *Opuscula medica inaudita*, p. 54: 'Occasione libri mei de febribus, ad me e diversis Europae sinibus, scripserunt magnae notae viri, petentes, elucidationem, circa remedia ibidem tradita. Fatentur quidem, se agnoscere, in audacia meae promissionis, vera subesse februm quarumcunque remedia: se dolere nimiam scripti mei obscuritatem.'

⁴⁰ *Ibid.*, § 2, p. 54.

⁴¹ T. S. Patterson, 'Jean Beguin and His *Tyrocinium Chymicum*', *Annals of Science* II (1937), pp. 243-98. Van Helmont always refers to the authors (plural) of the *Tyrocinium Chymicum*, probably because of the history of the book, which was first published by a student of Beguin, and then edited and improved by Beguin himself.

Helmont points out that the Beguin is telling stories about the usage of mercury, and that he will clarify some problems. Here is the passage in question, in Chandler's translation:⁴²

Moreover, as to the question, wherein they ask, whether the fire of *Venus* be the spirit of Vitriol rectified? I will make somethings manifest concerning the nature of Vitriol, and the distillation thereof which before have been delivered by none. For indeed, nature hath produced a certain acide or tart Mineral salt, which the *Greeks* do name *Calcanthum*; and the Latines (by an unfit name, *Atramentum Sutorium*, or shoemakers ink). But the unripe birth of embryonated or imperfect Sulphur, the which, while it licks the vein of Copper, it eats into the vein, and therefore it is called *Coperon*, or gnawn Copper. But if it shall gnaw a vein of iron, or of other Mettals, it produceth sharp fountains, and those divets, according to the disposition of the vein that is gnawn; which things I have profesly, and at large prosecuted in a little book concerning the fountains of the Spaw.⁴³

This passage, in which Van Helmont discusses the etymology of vitriol and in which he refers to his early treatise on Spa waters (*Supplementum de spadanis fontibus*, 'Additional Information on Spa Waters', Liège 1624) is rendered into English by Daniel Foote as well:

But now letts come to the Question, wherin they demaunde, wheiter or no the fire of Venus be the Spirite of vitriol rectified? I shall here make known some thinges concerninge the nature of vitriol and the distillinge thereof which never were delivered by any man before. Therefore wee must know that Nature hath produced a certaine minerall Salt which is acide, and by the Greekes called Calcanthum, and the Lattins name it by an unsuitable name viz: Shoomakers-Blackings. But the Chymists call it vitriol, because it is transparent like glass. But that same salt is the immature birth of embryonated Sulphur, who whilst it toucheth the veine of copper it corrodes it and therefore also its called coperas, or the Corroder of Coper. But if this salt toucheth upon a veine of iron, or other mineralls, and corrodes them, it causeth acide fountaines to Springe up, and also divers others, accordinge to the nature of the corroded veine,

⁴² Van Helmont, *De lithiasi*, Ch. 8, § 9, in *Opuscula medica inaudita*, p. 56: 'Errant proinde Tyrocinii chymici Scriptores, quotquot variis mentiuntur fabellis, Mercurii metamorphosin in salem, aquam, oleum, ad varios Medicaminum usus, audentque sua inventa hoc stabiliri argumento: Si enim aurum, corporum constantissimum, queat in vitriolum, adeoque et in fumum evolare: quidni idem faciet multo licentiosius Mercurius?'

⁴³ Ibid., §§ 11-3, p. 56: 'Porro ad quaestionem, qua petunt, num ignis Veneris sit spiritus Vitrioli rectificatus? quaedam de natura vitrioli, ejusque distillatione, per neminem ante me tradita, pro palabo. Enimvero natura produxit sal quoddam minerale, acidum, quod Graeci Calcanthum, ineptoque nomine, Latini, Atramentum sutorium nominant. Chymici vero vocant vitriolum, quia translucidum vitri instar. Est autem sal istud embryonati sulfuris immaturus partus, qui dum lambit venam cupri, eam erodit, diciturque ideo cuperosum, sive cuprum erosum. Sin autem venam ferri, vel aliorum mineralium roserit, fontes parit acidos, ac diversos, juxta venae erosae indolem. Quae ex professo, libello de fontibus Spadanis, ad longum sum prosecutus.' See Van Helmont, *A Treatise of the Disease of the Stone*, Ch. 8 ('The Author offers a dainty Dish to young Beginners'), § 11-2, in *Oriatrike*, tr. by J. Chandler, p. 889.

which matters I have largely treated on, in my litle booke which I made for this purpose concerninge the Spaw-wells.⁴⁴

Sulphuric acid, or vitriol, has a highly corrosive quality, and can ‘burn’ through many materials, including metals. Van Helmont dedicated half a chapter to its qualities and characteristics, which is just one example of the importance of this powerful acid.⁴⁵ The answer to the question he raised follows much later in the chapter. However, here we are interested in the vocabulary used by Van Helmont and in the ways in which he used it.⁴⁶ Already in his treatise on the Spa waters Van Helmont had given both the Greek and the Latin term (*exemplo vitrioli sive chalcanti rem exponam*), but it is here that he distinguished between a term applied by Latin speakers (*Atramentum Sutorium*) and a term used by the chemists (*vitriol*).⁴⁷ Daniel Foote did not bother to include the Latin term and only gave an English translation, in contrast to John Chandler. The contrast between the two also shows the peculiarity of the name when compared with the other two terms. It is interesting to note that the Paracelsian alchemist and physician Martin Ruland (1569-1611), mentioned the three terms interchangeably in his 1612 *Lexicon alchimiae*, thus demonstrating that Van Helmont was not original in this field from a terminological point of view.⁴⁸

Knorr von Rosenroth followed his preferred practice of including the Latin (and Greek) terms as well as translations into German.⁴⁹ The ‘embryonated sulphur’ (*embryonatum sulphur*) was certainly one of the complicated concepts that would not have been immediately clear to the reader, even though Van Helmont used the exact same words in his treatise on the Spa waters.⁵⁰ Chandler added the adjective ‘imperfect’ to clarify the meaning of *embryonatus* in that particular

⁴⁴ Van Helmont, ‘An Unheard-off Doctrine concerning the Stone-Colicke, Ch. 8 (‘The Authour presentes a mess to Beginners, on Pyrotehny [sic]’), §§ 11-2, in BL, Sloane MS 617, tr. by D. Foote, f. 75r.

⁴⁵ Van Helmont, *Supplementum de spadanis fontibus* (‘Paradoxum tertium’), §§ 13-25, in *Ortus medicinae*, pp. 650-1.

⁴⁶ Van Helmont’s summary on Venus (i.e. copper) and its dominance in the spirit of vitriol, see Van Helmont, *De Lithiasi*, Ch. 8, § 21, in *Opuscula medica inaudita*, p. 58.

⁴⁷ Van Helmont, *Supplementum de spadanis fontibus* (‘Paradoxum tertium’), § 14, in *Ortus medicinae*, pp. 650.

⁴⁸ Martin Ruland, *Lexicon alchimiae, sive dictionarium alchemisticum*, Frankfurt 1612; repr. Hildesheim, Zürich and New York 1987, p. 124: ‘Zeg viride vel Atramentum sutorium, vel vitriolum vel chalcantum natiuum mutatur vel transit.’

⁴⁹ Van Helmont, ‘Eine noch nie erhörte Lehre vom Stein im Menschen, Ch. 8 (‘Eine Zugabe so der Autor den Anfängern zu einem Confect vorsetzet’), §§ 11-2, in *Aufgang*, tr. by Knorr von Rosenroth, p. 487: ‘Belangend aber ferner die Frage, da sie zu wissen verlangen, ob das Venus-Feuer ein hochgereinigter Vitriol-Geist sey? So will ich etwas von der Natur und Distillirung des Vitriols entdecken so bis anhero noch von niemand beschrieben worden. Nemlich es hat die Natur ein gewisses Mineralisches saures Saltz hervor gebracht welches die Griechen Cchalcantum oder Kupffer-Blumen, die Lateiner aber mit einem ungereimten Nahmen Atramentum sutorium oder Schuster-Schwärzte nennen. Die Chymisten aber nennen es Vitriolum weil es durchsichtig ist, wie ein Glaß. Es ist aber dieses Saltz eine unreiffe Geburt eines unzeitigen (embryonati) Schwefels, welche in dem sie bey einer Kupffer-Ader vorbei fleust, dieselbe zerfrisset, dannenhero es auch cuperosum aud deutsch Kupffer-Wasser das ist so viel als cuprum erosum, oder zerfressenes Kupffer genennet wird. Naget dasselbige aber an einem Eisen Gange oder an einigen andern Berg-Arten so werden Sauer-Brunnen draus und zwar interschiedlicher Arten nach dem die Natur derjenigen Gänge so dadurch zernaget worden mit sich bringet. Welches ich mit Fleiß in meinem Büchlein von den Brunnen zu Spae der Länge nach ausgeführet.’

⁵⁰ Van Helmont, *Supplementum de spadanis fontibus* (‘Paradoxum tertium’), § 24, in *Ortus medicinae*, p. 651.

context, as did Knorr von Rosenroth, who used *unzeitig* ('untimely'), both agreeing on the 'immature' or 'not full grown' aspect of the sulphur before it was married with a metal.⁵¹ We continue the discussion about the translation of recipes and terminology in the next section dealing with the plagues and its possible cures.

The Plague

Before coming to the final remarks of this chapter, I shall conclude with a few more examples to shed further light on the translation practices enacted by the translators of Van Helmont's work. In the case of the plague we have the opportunity to compare the translations by Knorr von Rosenroth to those of his contemporary Seyfrid. This provides the opportunity to more closely examine the degree to which Knorr von Rosenroth stood out in his approach to translation, and the degree to which his practice simply reflected the standardized language of the time.

As seen in Chapter 2 of this thesis, Van Helmont provided two versions of his treatise on the plague, one in Dutch and the other in Latin, and they are rather different, although the chapter headings are more or less the same in both number and content.⁵² In the Latin version, for instance, Van Helmont mentions that he used the *Antidotus Saxonica* many times, but always without success. His explanation is that the 'poison, contained in a spiritual image of terror finds nothing in the aforementioned antidote which can radically conquer that same image.'⁵³ In the *Dageraed*, however, Van Helmont stated that, while the antidote was not the best and very likely would not save anyone from contracting the infection, it was nevertheless useful as a sweat potion (*sweet-drancken*).⁵⁴ Therefore he thought it was worth communicating the recipe, which he did by giving two versions of the same antidote. In this case, we can refer to Johannes Seyfrid's translation (because he only translated the treatise on the plague) and see how he dealt with Van Helmont's original text, especially with respect to the ingredients listed in the recipe:

Radices valeriane, i.e. valerian, *Πεο* in Greek. 2. *Urticae minoris*, called nettles. 3. *Umce toxicæ hyrundinarie Aslepiadis*, or swallow-wort. 4. *Polipodii querni*, polypodium. 5. *Altheae*, marsh mallow, *Ibiscus*, *Olus Indiacum*, *bismalva*. 6. *Anglice silvestris*. 7. *Anglice sativae recentis*, four

⁵¹ Ibid., § 25, p. 651: 'Quatenus scilicet ex metallo, et cujusdam salis esurini connubio, liquor metallicus, coagulabile inquam vitriolum efficitur.'

⁵² See Ch. 2, p. 88.

⁵³ Van Helmont, *Tumulus pestis* ('Hippocrates redivivus'), in *Opuscula medica inaudita*, p. 272: 'Quia virus spirituali terroris imagine consistens, nil habet in praefata antidoto, quod radicitus eandem superet imaginem.'

⁵⁴ Van Helmont, 'Van de Pest: Seventiende pael, Genesinge der pest', in *Dageraed*, p. 382: 'Item een ander beschreven door den Heere van Ranzon, aen sijnen sone, genaemt Antidotus Saxonica; en hoewel sy niet eygens in de pest en houden, (mits een geestleijck fenijn haer hoofstuck is,) nochtans wesende wel de beste, sullen de selve hier geerne aenteeckenen.'

ounces of each. 8. *Corticum radices laureole*, mezereon, three shoots. 9. *Baccarum herbae Paris*, solanum with four leaves. 10. *Acetum vini acerrimum*. These roots are at their best between half August and September.⁵⁵

The above is the list of ingredients given by Van Helmont, and where he gives a comment in Dutch about the name or the quantity, I have translated it into English by citing the vernacular terms for plants. In both *Opuscula medica inaudita* and *Dageraed*, Van Helmont mentioned Heinrich Rantzau's *De conservanda valetudine*, as the source where he found the recipe for the 'Saxon antidote'.⁵⁶ Here we find more details about the quantities needed as well as more alternatives in the vernacular. Rantzau (1526-1598) wrote, for example, 'vincetoxici, id est hyrondinariae, which is called by the Germans *underwindung deß giffts*, or *Schwalbenkraut wurtzel*, by the French *domte venin*'.⁵⁷ Only readers familiar with the Latin terms of all ingredients would be able to work with Van Helmont's list of ingredients. It is even more interesting to see that Johannes Seyfrid left out all vernacular terms in his list of ingredients, in stark contrast to Knorr von Rosenroth who rendered all the names of the ingredients into the vernacular, and supplemented them with Latin terms.⁵⁸ Where Van Helmont follows this list of ingredients with another list for the second recipe, Seyfrid discusses the preparation of the potion first. Van Helmont's recipe includes all the parts of Rantzau's recipe, but is not a *verbatim* translation, nor are the translations by Seyfrid and Knorr von Rosenroth. They clearly take the recipe from Van

⁵⁵ Ibid., p. 384: 'Rad. Valeriane, dat is, baldriaen, *Pew* in 't Grieks. 2. Urticae minores, heete netelen. 3. Umce toxicum hyrondinarie Asclepiadis, oft swaluwe-wortel. 4. Polipodii querni, engelsur-wortel. 5. Altheae, Ibisch wortel; Ibiscus, olus Iudaicum, bismalva. 6. Anglice silvestris. 7. Anglice sativa recentis, van elcks vier oncen. 8. Corticum rad. laureole, kellershals drie loot. 9. baccarum herbae Paris, nacht-schatten met vier blaederen. 10. Acetum vini acerrimum. Dese wortelen zijn op sijn best tusschen half Oogst en September.'

⁵⁶ Van Helmont, *Tumulus pestis* ('Hippocrates redivivus'), in *Opuscula medica inaudita*, p. 272: 'Ranzonius namque, de sanitate tuenda, ad filium Saxoniam antidotum describit, per me tentaram aliquoties, at frustra semper.' Heinrich Rantzau, 'Ranzonius', is also mentioned in the *Dageraed* (p. 382), described as 'de Heer van Ranzon'. A humanist and astrologer, Rantzau wrote a book, dedicated to his son, in which he described the cure in question. See Heinrich Rantzau, *De conservanda valetudine liber*, ed. by Dethlevis Sylvius, Leipzig 1582, pp. 160-2.

⁵⁷ Ibid., p. 161: 'Vincetoxici, id est, hyrondinariae, quae Germanice dicitur *ubervindung deß giffts*, oder *Schwalbenkraut wurzel*, Gallice *domte venin*.'

⁵⁸ Van Helmont, *Tumulus pestis, das ist gründlicher Ursprung der Pest*, Ch. 17 ('Die Cur und Genesung der Pest'), tr. by J. Seyfrid, Sulzbach 1681, p. 325: 'Antidotus Saxonica. R. Rad. Valeriane. Urticae min. Vincetoxici. Polipodii querni. Altheae. Ibiscus. Angelicae silvestris. Angelicae sativae rec. ana 4 dram. Corticum rad. Laureole 1 dram. Baccarum Herbae paris XXVI gr. Acetum vini acerrimum. Die Wurtzel sollen zu halben Augusti, bis Septembris gesammelt werden.'; Van Helmont, 'Das Grab der Pest, Ch. 19 ('Der wider erstandene Hippocrates)', § 25, in *Aufgang*, tr. by Knorr von Rosenroth, p. 658: 'Erstlich Wurzeln von Baldrian (Valerianae auf Griechisch Phu). Zum andern van Eiter-Nesseln (Urticae minoris). Zum dritten Schwalben-Wurz (Vincetoxici, Hirundinariae, Asclepiadis). Zum vierdten Engelsüß-Wurzel (Polipodii querni). Zum fünfften Eibisch-Wurzel (Althea, Ibiscus, Olus judaicum, Bismalva). Zum sechsten von wilder Angelic (Angelicae Sylvestris). Zum siebenden von frischer Garten-Angelic (Angelicae sativae recentis) von jedem vier Untzen. Zum achten Wurtzel-Schalen von Kellers-Hals (Corticum rdicis laureolae) drey Loth. Zum neunnden Beeren von Nacht-Schatten mit vier Blättern (Baccarum herbae paris). Zum zehenden den allerschärfsten Wein-Essig. Diese Wurtzeln dins am besten zwischen dem hablen August und September.'

Helmont, they do not refer back to Rantzau's text, but they add their own elements. Van Helmont starts the recipe by saying:

One cuts the roots into a lead-coated pot, on top of that so much of the sharpest vinegar, that it swims two fingers above it; the pot well closed and attached, letting it cook for half an hour on a small fire.⁵⁹

Seyfrid added that the roots should be well cleaned (*wol gesäubert*), before putting them into a glazed pot (*verglasten Hafen*); a term Knorr von Rosenroth employed as well (*glasurten Topff*), instead of Van Helmont's 'lead-coated pot' (*verlooden pot*).⁶⁰ Rantzau suggested one could make *oxymel* (in Knorr's words 'a sour-sweet honey drink') from the vinegar which is not needed anymore after cooking the roots in it. He did not mention the name 'oximel', but gave a description which then was translated as *oximel* by Van Helmont and was adopted by the German translators. While Knorr von Rosenroth provided the explanation as above, Seyfrid simply copied Van Helmont.⁶¹ However, Seyfrid did not hesitate to make his own specific additions to the text, especially in the section with recipes, in which he added short introductions to the two following recipes he thought would be useful for the reader.⁶²

Another significant difference in the ways in which various translators turned Van Helmont into various vernaculars is the inclusion of entire sentences in Latin. Seyfrid used the Dutch *Dageraed* as his text, and while Knorr von Rosenroth included passages from the *Dageraed* to complement the *Ortus medicinae*, Seyfrid took some sections from the *Ortus medicinae* to complement the *Dageraed*, with the difference that he did not translate the Latin into German, but left it in the original language. We shall see a brief example, taken from the chapter on the 'Zenexton' (that is, an antidote against pestilential contagion) in the treatise on the plague, in which Van Helmont described his experience at the siege of Ostend (1601-03).⁶³ This is how John Chandler translated the passage in question:

I have seen in the Camps of *Ostend*, nigh the shoar, many thousands of men with such a *Zenexton*, the plague being removed; yea, and those who for every fifteen daies,

⁵⁹ Van Helmont, 'Van de Pest: Seventiende pael, Genesinge der pest', in *Dageraed*, p. 384: 'Men snijt de wortelen in een verlooden pot, daer op gedaen van den scherpsten edick, soo veel, dat hy twee vingeren daer over swemt, de pot wel toegestopt, en verpapt, latende een half uur koocken met slap vier.'

⁶⁰ Van Helmont, Ch. 17 ('Die Cur und Genesung der Pest'), in *Tumulus pestis*, tr. by J. Seyfrid, p. 325; Van Helmont, 'Das Grab der Pest, Ch. 19 ('Der wider erstandene Hippocrates'), § 25, in *Aufgang*, tr. by Knorr von Rosenroth, p. 658.

⁶¹ See fn. 59, and Rantzau, *De conservanda valetudine liber*, p. 162.

⁶² Van Helmont, Ch. 17 ('Die Cur und Genesung der Pest'), in *Tumulus pestis*, tr. by J. Seyfrid, pp. 328-31.

⁶³ Van Helmont, *Tumulus pestis* ('Zenexton'), in *Opuscula medica inaudita*, p. 261: 'Vidi autem in Castris Ostendanis, ad littus, multa virorum millia, cum ejusmodi Zenecton, Peste sublata. Imo et qui per quindenae singulas, sibi costas vesicarent, per arsenici trochiscos, byssinis peris inclusos. Atque illae sunt tragoediae Medicae, Italicae imposturae, finales periodi.'

embladdered their ribs by Trochies of Arsenick enclosed in fine linnen bags, and those are the medicinal Tragedies, the final periods of an Italian Imposture.⁶⁴

Here Van Helmont is opposing the use of a particular kind of *zenexton*, an amulet that, according to Italian use, contains arsenic and/or mercury and should be worn on the chest. He uses his eye-witness experience in Ostend to convince his readers that the remedy is completely ineffectual, indeed dangerous. Knorr von Rosenroth relies on the Latin, and leaves the Dutch mainly out of it, but Seyfrid does not.⁶⁵ I translate the passage in question from Van Helmont's *Dageraed* as follow:

I myself know that thousands died in the siege of Ostend, who wore such Zenexton around their neck and who would have a blister burnt on their breast every fourteen days there where the arsenic was mixed and dressed in silk. This is the result of this Italian deception.⁶⁶

Seyfrid does the following:

In der Welt-berühmten Belägerung Ostende, hab ich beobachtet, daß etliche tausend gestorben, welche dergleichen Zenexton antrugen, *imo et qui per quindenas singulas, sibi costas vesicarent, per arsenici trochiscos, byssinis peris inclusos. Atque illae sunt tragoediae Medicae, Italicae imposturae.*

I have left the quotation in the original to show how sometimes Seyfrid combines Dutch and Latin in his translation. The German part of the sentence is a direct translation of the text in the *Dageraed* (see fn. 66 for the Dutch), to which he adds the adjective about the great renown of Ostende's siege (*Welt-berühmt*). The second part of the passage is copied from the *Ortus medicinae*, with the last two words in the original (*finales periodi*) omitted, so that the meaning is slightly different, implying that the age of the medical impostures coming from Italy is not yet over. Seyfrid practices this way of translating throughout his entire treatise. Often he begins by fully translating the Dutch, to which he then adds a Latin sentence in brackets. On other occasions he acts as shown above and replaces part of the Dutch with a Latin sentence. He never acknowledges his procedure or the source from which he is quoting, neither in his preface nor

⁶⁴ Van Helmont, 'The Plague-Grave', Ch. 17 ('Zenexton, that is a preservation pomander against the Pest'), in *Oriatrike*, tr. by J. Chandler, p. 1145.

⁶⁵ Van Helmont, 'Das Grab der Pest', Ch. 18 ('Das Zenexton oder Angehencke'), § 8, in *Aufgang*, tr. by Knorr von Rosenroth, p. 642: '(N. Was mich belangt,) so hab ich in der Belägerung von Ostende gesehen daß an dem Ufer der see viel tausend Menschen an der Pest sturben, welche dergleichen Zenexton umb den Hals trugen: Ja auch die alle vierzehnen Tage sich Blasen an den Ribben (N. und an der Brust) brennen liessen durch Kuchlein darein Arsenick vermischet war in seidene Säcklein genehet. Diß ist der Ausgang der Tragödie, damit die Italienischen Aertzte die Welt betrogen.'

⁶⁶ Van Helmont, 'Van de Pest, Negentiende pael: Zenexton', in *Dageraed*, p. 394: 'Mijns halven, ick weet dat 'et met duysenden in het belegh voor Oostende storven, die dusdaenige zenexton om den hals droegen; jae, die alle veertien daegen een bleyne op de borst, daer den Arsenic in vermengt was, en in sijde bekleet, lieten branden. Dit is den uytgang van dit Italiaens bedrogh.'

in the text itself. Seyfrid was probably aware, in purely pragmatic terms, that in some circumstances Latin works better than German, and for a relatively learned audience, small doses of Latin are clearer or more concise than clumsy attempts in German.

Seyfrid and Knorr von Rosenroth followed different translation practices. Seyfrid translated from vernacular into vernacular, but was clearly able to read and understand Latin, and was expecting the same from his audience. On the other hand, he was not concerned with the sources of his text, having stated that he was translating from Van Helmont's Dutch work. In this case, too, it seems that, amongst the translators of Van Helmont, Knorr von Rosenroth was the exception, for he made a constant effort to compare the *Ortus medicinae* with the *Dageraed*, while informing the readers about the differences. Moreover, for reasons of clarity and communication, he often did not refrain from adding material in silently, as we saw in the previous chapter.

Conclusions

The examples discussed in this chapter are partly taken from the *Ortus medicinae*, but mainly from the *Opuscula medica inaudita*. These four treatises published during Van Helmont's lifetime contained a relatively high amount of practical information, and were very popular among the translators. Apart from Chandler and Knorr von Rosenroth, who turned Van Helmont's whole work (i.e., both the *Ortus medicinae* and the *Opuscula medica inaudita*) respectively into English and German, the other translators selected specific sections from Van Helmont's medical output, and they would always include parts of the *Opuscula*.

In contrast to the terminology discussed in the previous chapter, the specific vocabulary examined here was relatively new, and could in many cases be traced back to Paracelsus or Van Helmont himself. Without exceptions, the new words were copied into the various vernaculars of the translators. Nevertheless, there are differences in the way they implemented this procedure. The French translators, for example, used the French *archée* for *archeus*, while Knorr von Rosenroth preferred to employ a German translation of the word while including the original between brackets. It is in the actual language applied to describe the new terminology where the translators are at their most creative, an ingenuity that mirrors Van Helmont's style. This is particularly evident in the section above on *gas* and *blas*.

The language adopted in recipes, both for the ingredients and the methods of preparation, was firmly based on Latin. Indeed, it was so traditionally Latinate that it is often not translated. In this case, the terminology given in Latin seems to be the standard one and is the universally understood language. And although the translators are rendering Latin into their vernacular (and

therefore local) languages, they still added the Latin term to be understood. They were carrying out their translations in such a way that readers belonging to local or national language communities could understand Van Helmont's work (as there was already a Latin version of the book, which could cross vernacular linguistic borders). The inclusion of the Latin terminology (or even only the Latin terms, as in Seyfrid) shows once more that Latin was still very dominant in these fields of knowledge. Notwithstanding the available vernacular vocabulary, the translators thought it effective for the readers to include the Latin terminology that they probably learned at university.

The adoption of Latin in the lists of ingredients stands in stark contrast to the abundant use of vernacular words in the methods of preparation described in the recipes. The many different terms for tools, pans, and glass-ware, and the various verbs used to denote actions in the process, suggest, in my opinion, that Van Helmont and the translators felt it necessary to discuss the practicalities of experimenting in their vernaculars.⁶⁷ Van Helmont was certainly also familiar with the Latin terminology in this field, but chose the Dutch *Dageraad* as his medium to include some of the recipes for the treatment of the plague, which could be another indication of the use of vernacular for more practical information.

On a more general level, it is apparent that the translators of Van Helmont incorporated his neologisms, as well as the slightly older Paracelsian terminology, into their vernaculars. In doing so they were faithful to Van Helmont's ideas about language and his assumption that the act of translating could further remove one's version from the original truth. Nevertheless, the little awareness the translators have expressed about Van Helmont's views on language shows that, in their actual work as translators, they did not rely very much on Van Helmont's thoughts about truth and language but rather adhered to more conventional ideas on language and science, namely to develop a strategy for conveying the meaning of the original text as clearly as possible to their vernacular readers. The dominant language was in many cases still Latin, but this chapter has shown that there were also fields in which the vernacular languages showed to be stronger – and that this was especially true in fields characterized by practical uses of knowledge.

⁶⁷ See also Michaela Pereira, 'Alchemy and the Use of Vernacular Languages in the Late Middle Ages', *Speculum* LXXIV (1999), pp. 336–56.

FINAL CONCLUSIONS

In September 1697 Gottfried Wilhelm Leibniz wrote to Domenico Guglielmini (1655-1710) that he 'held Francis Mercury in higher esteem than his father because he seems more sincere, and he knows many specific things (*specialia*), but he is now 80 years old.'¹ In the year before Francis Mercury's death, Leibniz placed the son above the father in terms of intellectual stature. Clearly Francis Mercury eventually found a way to develop his own ideas on medicine and philosophy, and on this basis he gained the recognition of fellow scholars. But although he had been educated by his father, he did not stand in the same tradition as his father. For our purposes, the most evident difference is that the son largely remained an autodidact particularly with regard to Latin.² As we have seen in Chapter 3, this did not go unnoticed by his contemporaries, such as Henry More and Daniel Foote, who commented on his language abilities.³

To a certain degree, Van Helmont's shortcomings in Latin reflect some general trends in the wider world of early modern learning. Leibniz himself had suggested in 1679 that a new system for the study of the natural sciences should be employed, based on a combination of skills and methods, leading from practical research to theory, and conducted in the vernacular so that those who were not versed in Latin could still take part.⁴ Latin as the language of the learned should be left behind, he suggested, and replaced by the various mother tongues, as already practised by the French and the Dutch. Francis Mercury was placed at the top of the list of those heralded as pivotal contributors to the realisation of these plans.

One of the results of the general shift away from Latin in the seventeenth-century natural sciences was that translators became even more important than before. Those translators from Latin to the vernacular or vice versa clearly belonged to an intellectual elite, which was still able to read and write Latin. The same linguistic skill-set could not be expected in their prospective audience, and it was precisely this that made translation necessary. Due to the changing social and religious situation in early modern Europe, to a wider availability of books, and to the expansion of education, there had been a marked increase in literacy. The minority among the literate that was able to read and especially write in Latin become smaller in comparison with the general increase in literacy. This meant that those who knew Latin became important

¹ Gottfried Wilhelm Leibniz to Domenico Guglielmini (end of September 1697), in G. W. Leibniz, *Sämtliche Schriften un Briefe*, 3rd series, 7 vols, Berlin 1976-2011, VII, p. 577: 'Ich halte den Franciscum Mercurium hoher als seinen Vater weil er aufrichtiger scheint, und schohn viel specialia weiß, ist aber nun 80 jahr alt.'

² See Ch. 3 fn. 29.

³ See Ch. 3, fn. 213.

⁴ G. W. Leibniz, *Consultatio de naturae cognitione*, in *Sämtliche Schriften un Briefe*, 4th series, 7 vols, Berlin 1983-2011, III, pp. 866-83; see also Werner Besch, Anne Betten, Oskar Reichmann, e.a. (eds), *Sprachgeschichte: Ein Handbuch zur Geschichte der deutschen Sprache und ihrer Erforschung*, 2nd ed., 4 vols, Berlin 1998-2004, I, p. 196-99.

intermediaries.⁵ At the same time, their translations of Latin texts into vernacular are harbingers of the general development which by the eighteenth and nineteenth centuries had made Latin largely obsolete as the language through which knowledge was transmitted.

As we saw in this thesis, Latin and vernacular languages lived side by side in the seventeenth century. There was no simple one-way shift from Latin to vernacular, nor was there one simple reason that might explain why some scholars preferred to alternate between Latin and vernaculars. The first chapter of this thesis showed how sixteenth-century Dutch authors (including mathematicians, grammarians, rhetoricians and poets) were promoting the use of Dutch at the University of Leiden and more generally in science. Very broadly stated, more Dutch meant less Latin. Their reasons behind this choice were manifold. To simply name a few reasons in an incredibly complex process, Peter Burke has pointed out the role played by national identity.⁶ Another reason could be found in the decline in the proficiency attained by students with regard to Latin; a development which, of course, requires an explanation in its own right. This decline created a hurdle for many students in obtaining their university degree; an obvious way of addressing it was to switch to the vernacular as the language of education.⁷

Jan Baptista van Helmont had several more reasons. First of all, he responded positively to Paracelsus's own claim that knowledge should be communicated through the vernacular, so that everyone, including ordinary laymen (one's 'neighbour'), could participate in good medical practice. Secondly, Van Helmont assigned the mother tongue the status of first language, for, according to him, the elaboration of thought and mental images always occurred in one's own native language. In this respect, the mother tongue was the first and most trustworthy language; the one closest to divine inspiration. As a result, translating from a native to a foreign idiom represented an inevitable step away from the original idea. Van Helmont also stressed the fact that the process of verbalisation took place in the innermost part of the soul (*mens, gemoed*), to which reason had no access. This is an important point, for Van Helmont's belief in the original value of one's vernacular idiom and the retreat of the ratiocinating faculty as a truly cognitive power led him to countenance firstly a radical reassessment of the value of formal logic and secondly innovative plans for educational reform in which practical experience would prevail over syllogistic arguments and inane discussions of ancient authorities.

⁵ Robert A. Houston, *Literacy in Early Modern Europe: Culture and Education 1500-1800*, 2nd ed., Harlow and New York, 2002, pp. 1-9. Houston's book represents a very relevant study in a field of study in the need of more attention, as he himself asserts in Ch. 6 ('Sources and Measures of Literacy'). One task would be to more closely analyse the relative increase in literacy in the early modern period between Latin and the vernaculars. A study based on more quantitative research could give us, in combination with qualitative studies such as the one I have attempted here, a better insight in the practices of education and literacy in this period.

⁶ Peter Burke, *Languages and Communities in Early Modern Europe*, Cambridge 2004.

⁷ As discussed in Chapter 1, see for example H. L. Spiegel, *Ruygh-bewerf vande redenkaveling*, Leiden 1585, p. 5-7.

In Chapter 2, I have compared the *Dageraed* and the *Ortus medicinae* by looking at a number of characteristic topics. His use of *pael* for ‘chapter’ in the *Dageraed* provided us with a first example of how attuned Van Helmont was to the use of language. It also demonstrated his willingness to share with his readers the rationale behind many of his choices. From the point of view of syntax and vocabulary, his use of language in Dutch and Latin is very similar. This may suggest that Van Helmont’s self-translation process from Dutch (his mother tongue) into Latin was not as difficult as he seemed to imply in his introductions to the *Dageraed* and *Ortus medicinae*. Rather, the difficulty in the translation process might well have occurred the other way around when he was proceeding from Latin to Dutch, as he seemed much more at home and confident writing in Latin when he was dealing with issues of medicine, philosophy and theology. The reasons he gives for not writing all his works in Dutch (namely, the lack of useful terminology) is not obvious at all when reading the *Dageraed*, since the vocabulary is actually very rich. His complicated syntax, on the other hand, is a direct copy of Latin syntax, which once more seems to suggest that in scientific matters Latin dominated and left its imprint even where the finished product was in Dutch. Following the example of many other illustrious Paracelsians, such as Gerhard Dorn, Petrus Severnius and Oswal Croll, he therefore wrote and published most of his works in Latin.

In Chapter 3, I have examined the reception of Van Helmont’s work against the background of its editions and translations. By comparing the life and travels of his son Francis Mercury to the ways in which his father’s books were edited, translated and printed, it became clear that Francis Mercury played a much more important role in this process than previously thought. It has also become apparent that the subsequent editions and translations of Van Helmont’s texts reflected the changing philosophical ideas throughout the seventeenth century. For example, Walter Charleton, a royalist throughout his life, wrote at the very beginning of the English Interregnum (1649-1660), at a time when Helmontian ideas spread among some of the Parliamentarians. As a reaction to this tendency, it does not come as too much of a surprise that Charleton’s introduction to his Helmontian translations was interwoven with Hobbesian ideas. By contrast, John Chandler’s 1662 version was imbued with influences from the Religious Society of Friends, or Quakers, which at the time was much favoured by Francis Mercury’s English contacts. Another twenty years later, we can discern the imprint of John Locke’s ideas upon the translations produced by Daniel Foote.

It is very likely that Francis Mercury van Helmont earned money from collaborating in the publication of books dealing with his father’s treatises, although the precise details elude us. It is obvious, however, that the illustrious legacy of Jan Baptista initially opened doors for him to many European families, starting with the Palatine family, most of whose members were still residing in The Hague at the time. These patrons (a designation justified by the fact that several

of the siblings would pay Francis Mercury for his services) were later joined by Christian August from Sulzbach, and several others who provided him with the funds which enabled him to travel through Europe constantly. He was in the fortunate position not only to be able to fulfil his patrons' instructions, but also to carry out his own business. This business ranged from the cultivation and maintenance of contacts with his many friends to the companionship he provided to Anne Conway for nine whole years. It also included his efforts to ensure that his father's ideas stayed alive.

In Chapters 4 and 5, I have discussed the ways in which different translators reacted to and appropriated Van Helmont's language. They did not spend much of their energy on commenting upon Van Helmont's use of language, or even on their own choices. Only Charleton and Christian Knorr von Rosenroth explained their linguistic decisions to some extent. On the other hand, all translators explicitly drew the reader's attention to their own activity; namely, that they were rendering Van Helmont's original text into their own vernaculars, most commonly for the purpose of comprehensibility. In Chapter 4, I have pointed out that Van Helmont's ideas about language, the mind, and logic were based on traditional, scholastic vocabulary. In some cases, since the Middle Ages, the vernaculars had already developed a specific terminology to deal with technical points of doctrine. This is particularly evident in earlier translations and texts of theological and mystical content. And yet, although he assumed a certain familiarity with vernacular terminology among his readers, Knorr von Rosenroth decided to include systematically, in his German translation, the Latin equivalents of technical terms in brackets, to prevent any obscurity.

In Chapter 5, I have analysed the translation of newer vocabulary, including Paracelsian and Helmontian neologisms. I have noted that all translators transferred the new vocabulary into their own languages, occasionally with some explanations. While the philosophical terms had their equivalents in the vernaculars, I found it particularly significant that the Latin terminology for ingredients of alchemical recipes and experiments remained in the original, unlike the specific instructions in the recipes, which instead were duly translated into the vernacular. This fact demonstrates the capacity of a vernacular vocabulary to deal with practical directions and things: objects, tools, processes, etc. This is interesting in light of Van Helmont's comments about the lack of Dutch words for specific objects or notions, all the more so because in the *Dageraed* he is in fact able to use many words to denote a large number of objects and entities. The greater denotative power of vernaculars when descriptions of methods and preparations are involved seems to suggest that individual national languages were perhaps used more than Latin in these specific domains of medical and scientific practice. The divide between usage of Latin and vernacular linked to theory and practice respectively is a provocative hypothesis, and will need further research in the future, with a much wider range of sources than Van Helmont

alone. But even within the recipes, we can see a similar division, in which recourse to Latin is necessary for naming the ingredients – which can be seen as the theoretical part of the recipe – while the vernacular is used to describe preparations, which rather corresponds to the practical side of the operation. In most of the fields of knowledge I have discussed in this thesis, such as philosophy, theology, logic and medicine, Latin still held sway, even though applicable terminology was present in the vernacular languages. However, in the environment of the laboratory or workshop, the working language tended to be the vernacular. This is reflected in the idioms used by Van Helmont and his translators.

The concept of ‘mother tongue’ has been analysed throughout this thesis. It has become clear that this term needs to be reevaluated in contrast to second languages. As I have indicated more than once, Van Helmont argued that the words which were the end result of the first translational step from ideas and images were the words of the mother tongue (*moederstaele*, or *vaderlandsche taele*). However, a closer examination of Van Helmont’s text both in his mother tongue and in Latin reveals that Latin is far more dominant in his writings than Dutch – indeed, one can even say that the influence of Latin percolates down into his use of Dutch. Van Helmont seems to have struggled with two different concepts, namely that of the mother tongue as influenced by the Paracelsian ideal of knowledge obtained from and shared with local unlearned people, and that of the language into which his ideas had been shaped by his academic training. Van Helmont’s concept of translation can be generalised to encompass the translation from one language – closest to the image of truth in the mind – to any other language. Common sense probably speaks in favour of the mother tongue as the language closest to the mind’s truth. However, studies on bilingualism and multilingualism have shown that people who have more than one language at their disposal often have a more complicated linguistic relationship to reality, with different languages prevailing in different parts of their lives. This dominant language can change, for example, depending on whether one is at the workplace, talking with the children at home or pursuing a hobby at the local choir or sports centre. Van Helmont was certainly bilingual (he knew Dutch and Latin, but probably also French) as were most of his colleagues. On the basis of the analysis of his languages and relying on recent research on bilingualism, it seems fair to suggest that Van Helmont’s first language in the field of medicine and alchemy – broadly speaking, his professional language – was Latin instead of Dutch. Even though this is at odds with his philosophical (and theological) views about translation from the mother tongue into any other language, it still is in agreement with the general assumption that ideas become blurrier when transferred from the idiom that plays the role of native tongue. Parallel to Van Helmont’s campaign for the use of the language closest to one’s ideas, other followers of Paracelsus, too, were dealing with this problem, as can be inferred from the fact that they were publishing in Latin rather than using their vernacular languages, as Paracelsus himself had advocated.

The very last part of this thesis has been devoted to the translators who ushered the author Van Helmont into those spaces of learned communication where their own languages were the medium of discourse and discussion. Their versions, omissions, and additions formed the basis for the local reception of Van Helmont. The decisive element in this story is not the degree of faithfulness with which the translations mirrored Van Helmont's originals; rather, their differences bestowed upon those versions the status of texts in their own right. Furthermore, the translators deserve recognition as important conveyers or transmitters of knowledge. Although the differences between the translations have turned out to be small, and the translators largely avoided engaging with the more theoretical issues of language and translation, they nevertheless presented us with different views of Van Helmont. The Hobbesian Van Helmont of Charleton; the Van Helmont-without-recipes of Le Conte; the Lockean Van Helmont of Foote; and the Van Helmont of Knorr von Rosenroth, who kept the reader well-informed about the Helmontian terminology in both German and Latin, to name but a few.

Several of the translators, however, commented on the fact that Van Helmont was also a severe critic of the old academic system. We have seen how H. Blunden praised Van Helmont for the way he demolished the old pillars of knowledge, in his 'Introduction to the Reader' in John Chandler's translation of the *Ortus medicinae*. Daniel Foote paid attention to Van Helmont's criticisms of the educational system, by translating the treatise 'The Uselessness of Logic'; and Jean Le Conte devotes special attention in his translations to the many passages in which Van Helmont attacks the Aristotelian theories.⁸ This shows that, apart from the applicability of his medical theories and remedies, the relevance of Van Helmont's thought – a relevance which then made translations necessary – was derived from his efforts to renew the system of learning. In that sense he was a child of his time, standing shoulder to shoulder with someone such as Francis Bacon, whose *Advancement of Learning* (1605) appeared just before Van Helmont himself started publishing, and with other figures such as the Dutch authors who were pushing for Dutch as the language spoken at university. This movement of educational reform continued after his death, as demonstrated by the examples of Francis Mercury and Leibniz who both campaigned for the use of vernacular in education and study. Van Helmont was an innovator, who was probably better at breaking down the old system 'then Erecting a more substantial and durable Structure of his own', to quote Blunden once more, but he clearly hit the right nerve of his readers and those who translated, edited and published his works again and again throughout the seventeenth century.⁹

The exchange of knowledge through translation that is illustrated by the case of Van Helmont's works testifies to a large number of individual and interrelated stories of reception,

⁸ See Ch. 4, pp. 151, and 166-70.

⁹ H. Blunden, 'To the English Reader', in Van Helmont, *Oriatrike or, Physicke Refined*, translated by John Chandler, London 1662, sig. A^v.

appropriation and re-use. The record of the various people who worked for days, weeks, or even months on translating Van Helmont is key to understanding Helmontian reception within the dimensions of their linguistic resources. These personal reports have been overlooked in the wider study of early modern scientific exchange, despite the fact that this very common form of sharing knowledge presents us with much more information than might initially seem to be apparent from the simple act of transferring one text into different languages. Rather than being merely passive media through which knowledge was being transferred, these translators were active agents in effecting a fundamental reconfiguration of scholarly communication. This transformation goaded Europe's intellectual culture along in its passage from a mainly Latin-based culture of knowledge to the bewildering landscape of national languages which we know today and which both impedes scholarly communication and necessitates the remedy of translation.

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