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**JOHANNES SWARTENHENGST (1644-1711):
A DUTCH CARTESIAN IN THE HEAT OF BATTLE**

ESTER BERTRAND



**PHD THESIS
UNIVERSITY OF EDINBURGH & FREE UNIVERSITY OF BRUSSELS
2014**

JOHANNES SWARTENHENGST (1644-1711):**A DUTCH CARTESIAN IN THE HEAT OF BATTLE**

ESTER BERTRAND

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I, Ester Bertrand, hereby certify that this thesis, which is approximately 95.000 words in length, has been written by me, that it is the record of work carried out by me and that it has not been submitted in any previous application for a higher degree.

ABSTRACT

This dissertation discusses the life and the writings of the seventeenth-century Dutch Cartesian Johannes Swartenhengst (1644-1711). Thus far Swartenhengst has always been an obscure and little-noticed figure in the history of the Early Dutch Enlightenment, who is only briefly mentioned in a couple of secondary sources due to his intellectual association with the Flemish philosopher Arnold Geulincx (1624-69). In recent years I have discovered fourteen previously unknown disputations that Swartenhengst presided over during his career as lector at Leiden in the early 1670s. Swartenhengst's appointment at this university was, however, soon terminated on account of his overzealous defence of Cartesian philosophy, and no significant details have remained from his life hereafter. Although Swartenhengst's disputations bear a somewhat concise and impersonal character (as is typical for the genre), they touch upon all the major philosophical disciplines that were then taught at the university. Swartenhengst's dismissal occurred at a particularly heated moment, when the ecclesiastical pressure that had been building up since the political changes of 1672 now finally culminated at the university. His disputations, therefore, provide us with an interesting example of the Cartesian views that were circulating in academic circles, but which were apparently no longer tolerated. More importantly, however, Swartenhengst's disputations also provide us with an interesting case study of the immediate continuation of Geulincx's philosophy at Leiden, whose views soon disappeared into oblivion on account of their association with Spinozism during the early eighteenth century. Apart from offering a detailed account of Swartenhengst's biographical details and a discussion of the major theological problems that were associated with René Descartes' philosophy, this dissertation also includes an analysis of the content of his disputations, which focuses on the topics of occasionalism, epistemology, and natural law. Finally it will be asked how closely Swartenhengst's disputations related to the views of his teacher Arnold Geulincx; and whether he should be labelled a 'radical Cartesian' on account of the content of his teaching? Although Swartenhengst was only a minor player in the history of the Early Dutch Enlightenment, the details of his life and writings certainly represent a unique and interesting story, which can also contribute to our general understanding of the period.

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4. Anonymous drawing of the rector's house with the stone-framed doorway to the Latin School (left), which neighboured the Citizens' Orphanage on the Doelenstraat (right) (1799); purchased from *Beeldbank Alkmaar*: PR 1000096.

PREFACE & ACKNOWLEDGMENTS

Over the past six years there have been quite a few occasions when family members, friends, colleagues, or new acquaintances have asked me what I am writing my PhD about. Whenever I replied that it concerned a seventeenth-century Dutch Cartesian, a so-called Johannes Swartenhengst, people unfortunately rarely ever recognised his name. This is not at all surprising if one considers that only twelve pages of writing had been preserved in Swartenhengst's name, while his career as a university lecturer at Leiden took an early ending after only five years. I assume that the main reason why Swartenhengst is being mentioned in over a dozen of secondary sources relates to the rather unsavoury story of his dismissal, and his intellectual association with the Flemish philosopher Arnold Geulincx. Personally, I firstly came to know about Swartenhengst's existence during my philosophy studies in Brussels, where Professor Rudolf De Smet considered it a useful exercise for me to translate and analyse the only remaining disputation in his name. When I thereupon continued my studies in Edinburgh during the academic year 2005-2006 I coincidentally discovered twelve previously unknown disputations from this same Swartenhengst in the National Library of Scotland. With the help of various internet searches it then turned out that two additional disputations have also been preserved in the Universitäts- und Landesbibliothek Bonn.¹

In the autumn of 2006 I was able to commence this PhD thanks to the five years of funding that I received from the Flemish Research Foundation (FWO), the Free University of Brussels, and the University of Edinburgh. The first year I mainly spent on transcribing and translating Swartenhengst's disputations. And thereupon I continued to try and analyse the meaning of his disputations, the sources from which he derived his views, the historical-political context in which these emerged, and I also gathered as many biographical details from his lifetime as possible. During the past years it has especially taken me some time to develop a decent grasp of the meaning and contextual value of Swartenhengst's disputations, which are of a very concise nature and quite

¹ Concerning the history of the *Dieterichs Collection* in the *National Library of Scotland* (in which the majority of Swartenhengst's disputations were preserved) and the transport route by which these arrived at their current location cf. Meixner & Hogg 2006; Nix 2002: 2-5.

haphazardly skip from one source to another without adding any references. Although for me it certainly was a demanding challenge to evaluate Swartenhengst's writings and his historical role as a seventeenth-century Dutch Cartesian, this project has also offered me a lot of opportunities to learn in terms of the Latin translation, the archival research, and the philosophical interpretation that were involved. In spite of the fact that Swartenhengst was a rather imprudent figure in his personal lifestyle, his disputations certainly also reveal some genuinely interesting and original content, which in the end truly makes it a shame that his career did not take a more favourable turn.

Over the past few years there have been quite a few people who have helped me to complete this project, - and while I take full personal responsibility for any of the mistakes and defects that will inevitably occur in this dissertation -, the final result would have looked much different without their guidance and support.

First off all I like to thank my supervisor from the Free University of Brussels, Professor Else Walravens, whose classes I have attended since my earliest days as a philosophy student, who supervised my Master's dissertation towards the end of my studies, and who has thereupon been a great intellectual and moral support while I was writing my PhD. In the same way I like to thank my supervisor from the University of Edinburgh, Doctor Thomas Ahnert, who firstly came to know Johannes Swartenhengst while he was supervising my Master's dissertation in Classics, who offered his support in arranging the administrative connection between Edinburgh and Brussels, and who has likewise been a true guide in helping me to construct and formulate the content of this dissertation. I could certainly draw up a rather extensive list of all the challenges, difficulties, and practicalities that they have both helped me with throughout this project, but in order to avoid a lengthy narration it might be best to just say it in the words of Swartenhengst's students: *Studiorum meorum fautoribus summis me et hoc exercitium philosophicum humillime offero indebitae gratitudinis τεκμήριον.*

As we arrive upon the topic of the Latin, I would also like to express my gratitude to various members of staff in both Edinburgh and Brussels. First of all I would again like to thank my supervisor from Edinburgh Thomas Ahnert, as well as my co-supervisor

Doctor Simon Trépanier, who have generously invested part of their time in order to get my Latin skills up to scratch at the start of this PhD. Furthermore, I would also like to thank my co-supervisors in Brussels, Professor Jef van Bellingen and Professor Rudolf De Smet, who once more helped me to revise my transcriptions and translations towards the end of this project. In this regard I am especially grateful to Rudolf De Smet, who has been particularly relentless and meticulous in his detection of mistakes during these final stages. Still the same rule obviously applies here, that I alone remain responsible for any of the flaws that might occur in the transcriptions and translations that can be found in the *Appendix Containing the Transcriptions and Translations of Swartenhengst's Disputations*.

When searching for Swartenhengst's disputations and the biographical details from his lifetime I made repeated enquiries with various librarians and archivists, who certainly deserve a brief mention here. My search for Swartenhengst's disputations started in the National Library of Scotland, where Anette Hagan provided me with an elaborate summary of her findings on the Dieterichs Collection. S Mühlbauer from the Universitäts- und Landesbibliothek Bonn provided me with copies of Swartenhengst's disputations and additional information on the content of the bundle by which these were contained. My archival research into Swartenhengst's lifetime has started in his birth town at the regional archive of Alkmaar, where Jan-Willem Balder, Ineke Sandbrink, and Jan van Baar have familiarised me with the basic operations of an archive. I subsequently moved on to the regional archive in Leiden, where I was again kindly helped by Benata Hengstmengel-Koopmans; and also at the Special Collections section of the university library in Leiden I frequently received a helping hand. Furthermore, I like to thank Mieke Breij from Utrecht's archive and Wiebe Boumans from the university library in this same place. And last but not least, I should also like to thank the staff at the university library in Brussels as well as in Edinburgh.

In my personal circle I would like to start by thanking the people who have been there from the beginning: First of all my mother and my grandparents, who have always provided me with a caring and loving environment; as well as my father, who has given me the opportunity to study, who more than once helped me with moving around

between cities, and who has always been a keen dog-sitter during any of my work-related trips. I would like to thank my colleagues in Brussels with whom I could not only share my work, but also my questions and concerns in regard of the PhD. I would like to thank my colleagues and friends in Edinburgh, some of whom were always ready to help me discover the local pubs, share a plate of nachos, and who have generously offered me their couch when I needed a place to stay. Thank you Mariana, Ran, Brian, David, John, and Paul. I am also grateful to some friends in Belgium, whose company and friendship has been a great support, especially at those times when I was struggling. Thank you Cedric, Marleen, Raphael, Bert, Karin, Max, Matthias, Raymond, Benyamin, Guido, and Riham. Finally, I would like to give my special thanks to the canine genius behind this PhD, my dog Otto, who has patiently awaited his walks from underneath my desk whenever I needed ‘just those few more minutes to finish the paragraph’.

LIST OF ABBREVIATIONS

ASF	<i>Archieven van de Senaat</i>
AT	Adam, C. & Tannery, P. (eds.), (1897-1913), <i>Oeuvres de René Descartes</i> , 12 vols., Paris: Leopold Cerf.
Bridoux	Bridoux, A. (ed.), (1953), <i>Oeuvres et lettres: textes présentés par André Bridoux</i> , Paris: Gallimard.
CSM	Cottingham, J. et al. (transl.) (1985-91), <i>The Philosophical Writings of Descartes</i> , 3 vols., Cambridge: University Press.
DM1	Swartenhengst, J. (1673b), <i>Disputatio philosophica, de mundo</i> , Leiden: Joannis Elsevirius.
DM2	Swartenhengst, J., (1674a), <i>Disputatio philosophica secunda de mundo</i> , Leiden: Joannis Elsevirius.
DM3	Swartenhengst, J., (1674c), <i>Disputatio philosophica de mundo, tertia</i> , Leiden: Joannis Elsevirius.
DM5	Swartenhengst, J., (1675a), <i>Disputatio philosophica, de mundo quinta</i> , Leiden: Joannis Elsevirius.
DTB	<i>Doop-, Trouw-, en Begraafregisters</i>
ETH	Ruler van, H. et al. (transl. & eds.), (2006), <i>Arnold Geulincx Ethics with Samuel Beckett's Notes</i> , Leiden: Brill.
Miller	Miller, V.R. & Miller, R.P. (transl.), (1983), <i>René Descartes: Principles of Philosophy</i> , Dordrecht: Reidel Publishing Company.
MV	Wilson, M. (transl.), (1999), <i>Arnold Geulincx Metaphysics</i> , Cambridgeshire: The Christoffel Press.
NL1	Swartenhengst, J., (1672a), <i>Disputatio ethico-politica de lege naturali</i> , Leiden: Joannis Elsevirius.
NL2	Swartenhengst, J., (1672b), <i>Disputatio ethico-politica de lege naturali pars secunda</i> , Leiden: Joannis Elsevirius.
NL3	Swartenhengst, J., (1673c), <i>Disputatio ethico-politica, tertia, de origine humanae societatis</i> , Leiden: Joannis Elsevirius.
Olscamp	Olscamp, P.J. (transl.), (1965), <i>Discourse on Method, Optics, Geometry, and Meteorology</i> , New York: Bobbs-Merrill Company.
ONA	<i>Oud Notarieel Archief</i>
ORA	<i>Oud Rechterlijk Archief</i>

- Passions* Haldane, E. & Ross, G. (transl.), (1967), *The Philosophical Works of Descartes*, vol. 1, Cambridge: University Press.
- PP1674 Swartenhengst, J., (1674d), *Disputatio philosophica continens positiones aliquot ex philosophia summatim depromptas*, Leiden.
- PP1675 Swartenhengst, J., (1675b), *Disputatio philosophica continens positiones aliquae ex universa vera philosophia desumptae*, Leiden.
- S&E1 Swartenhengst, J., (1672d), *Disputatio philosophica, de scientia & errore*, Leiden: Joannis Elsevirius.
- S&E2 Swartenhengst, J., (1673a), *Disputatio philosophica, de scientia & errore, secunda*, Leiden: Joannis Elsevirius.
- S&E3 Swartenhengst, J., (1674b), *Disputatio philosophica de scientia & errore, tertia*, Leiden: Joannis Elsevirius.

INTRODUCTION

This dissertation discusses the life and the writings of the seventeenth-century Dutch Cartesian Johannes Swartenhengst (1644-1711). Thus far Swartenhengst has always been an obscure and little-noticed figure in the history of the Early Dutch Enlightenment, who is only briefly mentioned in a couple of secondary sources due to his intellectual association with the Flemish philosopher Arnold Geulincx (1624-69). In recent years I have discovered fourteen previously unknown disputations that Swartenhengst presided over during his career as lector at Leiden in the early 1670s. Swartenhengst's appointment at this university was, however, soon terminated on account of his overzealous defence of Cartesian philosophy, and no significant details have remained from his life hereafter. Swartenhengst's dismissal occurred at a particularly heated moment, when the ecclesiastical pressure that had been building up since the political changes of 1672 now finally culminated at the university. His disputations, therefore, provide us with an interesting example of the Cartesian views that were circulating in academic circles, but which were apparently no longer tolerated.

Swartenhengst's dismissal certainly had been no isolated event: Swartenhengst's Cartesian ally from Alkmaar, Cornelis Bontekoe (1644-85), was simultaneously dismissed from the university, and a few months later the senior professor Abraham Heidanus (1597-1678) was allotted the same fate. A handful of secondary sources have addressed Swartenhengst's and Bontekoe's dismissal from the university of Leiden. In these accounts the combined meaning of their names generally adds some catch to the story, which can respectively be translated from Dutch as 'black stallion' and 'spotted cow'. But more than making a good anecdote, the eventful dismissal of these two Cartesian fellows also introduced a notable change in the course of the philosophical tuition at the university, which was now led away from the Cartesian philosophy into the direction of the experimental science.¹

¹ For an extensive explanation concerning the aftermath of the Cartesian philosophy and the onset of the experimental science at Leiden under the influence of Burchard de Volder (1643-1709) and Wolfert Senguerdius (1646-1724) during the last quarter of the seventeenth century cf. Wiesenfeldt 2002: 76-98.

Apart from the story of his dismissal, Swartenhengst is also known for his intellectual association with the Flemish philosopher Arnold Geulincx. As will be more elaborately discussed in section 1.3.2 of this dissertation, Swartenhengst seems to have been teaching the latter's philosophy in his private lectures, as appears from the frequent Geulincxian paraphrases that his students formulated in these exercises. Hence, his disputations provide us with an interesting case study of the immediate continuation of Geulincx's philosophy at Leiden, which soon disappeared into oblivion on account of its association with Spinozism during the early eighteenth century. On a more general level Swartenhengst's disputations also provide us with a noteworthy example of the continuation of René Descartes' (1596-6150) philosophy in the seventeenth-century Dutch Republic, especially in as far as Swartenhengst's disputations on natural law were concerned; these clearly aim at filling in the ethical-political gap that had been left open by Descartes. The underlying occasionalistic thread that runs through the majority of these disputations can, besides, also be interpreted as a response to the unsolved problem of mind-body interaction in Descartes' philosophy.

Swartenhengst's texts all belong to the genre of the academic disputation, which were still in high demand at the Dutch universities at this time (even if they composed a frequent source for conflict). Although Swartenhengst's disputations bear a somewhat concise and impersonal character, they touch upon all the major philosophical disciplines that were then taught at the university. Hence, these disputations can be used as a lens through which we can observe the *status quo* of philosophical tuition at the university of Leiden in this period. Although Swartenhengst only was a minor figure in the history of philosophy, he naturally took various other authors as a source of reference and inspiration. On this account I also believe it to be very useful to study the text material that was produced by such smaller figures, because they allow us to enhance our understanding concerning the contemporary reception of the writings of more prominent thinkers. Although Swartenhengst's philosophical views are transmitted to us in a surprisingly dense and compact style due to the textual genre in which he was writing, his disputations therefore still maintain an indispensable value as an independent topic of research.

In Chapter One a comprehensive account of Swartenhengst's biographical details is provided, that is succeeded by a discussion of the major theological problems that were associated with Cartesianism in Chapter Two. In Chapter Three and Four the content of Swartenhengst's disputations is analysed, which focuses on the topics of metaphysics, occasionalism, and natural law. Finally, in the Conclusion the questions will be asked how closely Swartenhengst's disputations related to the views of his teacher Arnold Geulincx; and whether he should be labelled a 'radical Cartesian' on account of the content of his teaching? Although Swartenhengst was only a minor player in the history of the Early Dutch Enlightenment, the details of his life and writings certainly represent a unique and interesting story, which can also contribute to our general understanding of the period. The following bibliography offers a fairly extensive overview of the secondary literature that has (to a larger or smaller extent) included Swartenhengst in its research:

Aa Van der, A.J. (1874), 'Joannes Swartenhengst', *Biographisch woordenboek der Nederlanden, bevattende levensbeschrijvingen van zoodanige personen, die zich op eenigerlei wijze in ons vaderland hebben vermaard gemaakt*, vol. 17.2, Haarlem: J.J. van Brederode: 346.

Bruinvis, C.W. (1856), 'Joh. Swartenhengst (alcmarianus)', *De navorscher: een middel tot gedachtenwisseling en letterkundig verkeer tusschen allen die iets weten, iets te vragen hebben of iets kunnen oplossen*, 6: 214.

Bruinvis, C.W. (1888), *Over Alkmaarsche Geschiedboeken en Geschiedschrijvers*, Alkmaar.

Bruinvis, C.W. (1892), 'Cornelis Bontekoe, de theedoor', *Elzeviers maantijdschrift*, vol. 3, (1): 404-16.

Bruinvis, C.W. (1912), 'Schoon (Cornelis)', in P.C. Molhuysen; P.J. Blok; K.H. Kossmann (eds.), *Nieuw Nederlands biografisch woordenboek*, vol. 2: 1295-96.

Cramer, J.A. (1889), *Abraham Heidanus en zijn Cartesianisme*, Utrecht: J. Van Druuten.

Haeghen vander, V. (1886), *Geulincx. Etude sur sa vie, sa philosophie et ses ouvrages*, Ghent: A.D. Hoste.

Kobus, J.C. (1856), 'Joh. Swartenhengst', *De navorscher: een middel tot gedachtenwisseling en letterkundig verkeer tusschen allen die iets weten, iets te vragen hebben of iets kunnen oplossen*, 6: Amsterdam: Frederik Muller: 63.

Land, J.P. (1895), *Arnold Geulincx und seine Philosophie*, Den Haag: Nijhoff.

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- Ruler van, H. (2003a), 'Bontekoe, Cornelis (c. 1644-85)', in: W. van Bunge et al. (eds.), *The Dictionary of Seventeenth and Eighteenth-Century Dutch Philosophers*, vol. 1, Bristol: Thoemmes Press: 128-32.
- Ruler van, H. (2003b), 'Geulincx, Arnold (1624-69)', in: W. van Bunge et al. (eds.), *The Dictionary of Seventeenth and Eighteenth-Century Dutch Philosophers*, vol. 1, Bristol: Thoemmes Press: 322-31.
- Ruler van, H. (2003h), 'Jens, Petrus (1643-1720)', in W. van Bunge et al. (eds.), *The Dictionary of Seventeenth and Eighteenth-Century Dutch Philosophers*, vol. 1, Bristol: Thoemmes Press: 494-7.
- Ruler, van H. (2003i), 'Swartenhengst, Johannes (c.1644-?)', in W. van Bunge et al. (eds.), *The Dictionary of Seventeenth and Eighteenth-Century Dutch Philosophers*, vol. 2, Bristol: Thoemmes Press, 963-4.
- Sassen, F. (1959), *Geschiedenis van de wijsbegeerte in Nederland tot het einde der negentiende eeuw*, Amsterdam: Elsevier.
- Schotel, G.D.J. (1875), *De academie te Leiden in de 16^e, 17^e, en 18^e eeuw*, Haarlem: Kruseman & Tjeenk Willink.
- Siegenbeek, M. (1829-32), *Geschiedenis der Leidsche Hoogeschool, van hare oprigting in den jare 1575, tot het jaar 1825*, Leiden: Luchtmans.
- Siegenbeek Van Heukelom-Lamme, C.A. (1941), *Album Scholasticum Academiae Lugduno-Batavi, 1675-1940*, Leiden: E.J. Brill.
- Soermans, M. (1704), *Academisch register, behelsende de namen en waardigheden, der gene, welke zijn geweest in bedieninge der Universiteit tot Leyden, ofte eenige betrekking tot die hebben... in den jare 1575 tot in 1704: benevens het register der Academie tot Utrecht*, Leiden: Hendrik Teering.
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“Wat groote verstanden komender niet alle dage te voorschijn? of die lieden wel yet goets, of eenige waarheyt in de Boecken van hare partye gevonden hebben? of ist soo, dat sy als de Spinnekop alleen fenijn suygen uyt het geene daar de Bye den Hoonigh uyt treckt?”

ABRAHAM HEIDANUS, *Consideratien over eenige saecken onlanghs voorgevallen in de universiteyt binnen Leyden* (1676: 24).

CHAPTER 1

SWARTENHENGST'S LIFE AND TIMES

It was within a few years before the signing of the Peace of Münster when Johannes Swartenhengst was born in the Dutch town of Alkmaar in the year 1644. The momentous signing of this treaty by which the Eighty Years' War (1568-1648) between Spain and the Northern Netherlands was finally ended will most certainly have affected the historical and political course of events during the earliest decades of Swartenhengst's lifetime. Apart from the closure of the Eighty Years' War, the second half of the seventeenth century also commenced with the onset of a new Stadholderless regime under Holland's Grand Pensionary, Johan de Witt (1625-72). Due to the close interconnection between state, church, and the governing bodies at the universities, this political overturn had meanwhile also affected the intellectual atmosphere in the Dutch academic world. To name a straightforward example, Johan de Witt's brother, Cornelis, was appointed as one of the curators at the Republic's largest university, the illustrious academy of Leiden.¹ On a more general level the onset of this First Stadholderless period furthermore also coincided with the rapid success of the Cartesian philosophy at both Leiden as well as at various other Dutch universities.²

Although the shift to De Witt's Stadholderless regime by no means meant that Cartesianism now enjoyed a free reign in the Dutch Republic, an innovative spirit had presently yet proliferated at the university of Leiden and elsewhere. Notably, this sense

¹ The curators at Leiden were generally chosen from amongst the members of the town councils in the province of Holland, which resulted in an automatic connection between the residing political regime and the university's governing body (cf. Otterspeer 2003: 603-4; Panhuysen 2005: 357).

² During the seventeenth century the political power-scale in the Dutch Republic was balancing between the forces of Holland's regent patriciate versus the supporters of the House of Orange. Although both factions pronounced opposing political, religious, and intellectual preferences, some substantial differences in motivation and ideology as yet also occurred amongst their own rank and file. This to say, that obviously not every supporter of De Witt's Stadholderless regime was on that account also a Cartesian. A strong convergence between the supporters of the republican ideology and the defenders of the Cartesian philosophy, nevertheless, unmistakably occurred from the early 1650s onwards. At this time Johan de Witt was also framing his policy of True Liberty, by which he more sharply distanced himself from the orangists, who were themselves once again frequently opposed to the Cartesian philosophy (cf. Bunge van 2001: 65-6, 69; Israel 1995: 889-96; Kossmann 1960: 99-101; Kossmann 1991: 290-2, 294-7; McGahagan 1976: 17-19; Panhuysen 2005: 198-201; Poelgeest van 1990: 110).

of intellectual freedom was also once again curbed at most universities after De Witt's Stadholderless rule collapsed during the war of 1672. At the beginning of his new Stadholderate William III (1650-1702) would conduct extensive purges in the provinces and the town councils, but also in the schools the Prince repeatedly averted the appointment of less orthodox academics. Although it might still have been possible to expound a more 'liberal' orientation with some discretion, Swartenhengst's current career at Leiden will almost certainly have been hampered by this sudden change of climate.³ In order to obtain a thorough understanding of the development of Swartenhengst's Cartesian thought and the tensions to which he might on this account have been subjected, I have considered it necessary to include a summary description of the major historical-political events in the following biographical overview from his lifetime.

1.1 SWARTENHENGST'S YOUTH IN ALKMAAR

1.1.1 Introduction: the Peace of Münster

At the time of Swartenhengst's birth a majority of the provinces in the Dutch States General was participating in the peace talks at Münster, by which the Eighty Years' War against Spain would finally be ended.⁴ No more than a decade earlier the Republic had still launched a series of mutual attacks against the Spanish Netherlands together with France, and the current Stadholder - Prince Frederik Hendrik of Orange (1584-

³ Cf. Cramer 1889: 27; Israel 1995: 804-6, 896-9; Waardt de 2003: 34-7.

⁴ The States General was a political institution that had survived from the period under Burgundian and Habsburg rule, when it centralised the government of the seventeen provinces in the Low Countries in Brussels. During the course of the north-south Revolt the States General was forced to move north of the rivers from 1583 onwards, where it would permanently reside in The Hague after the murder on William the Silent in 1584. Henceforth the States General evolved into a confederal assembly that united the government of the seven sovereign provinces of the Dutch Republic: i.e. Gelderland, Holland, Zeeland, Utrecht, Friesland, Overijssel, and (from 1594) Groningen. Each of these provinces held one vote and decisions theoretically were to be taken unanimously, but in practice Holland frequently determined the outcome of these gatherings. The States General convened on matters of taxation, military and diplomatic affairs, as well as the administration of the Generality Lands and colonies (cf. Darby 2001: 8-10; Israel 1995: 21, 209-10, 214, 219, 247, 276-7, 291-3; Prokhovnik 2004: 17-18).

1647) – all the same desired to continue the fighting.⁵ His offensive aspirations were, nevertheless, severely opposed by Holland's merchant class, who demanded that the war should be rapidly ended in order to safeguard the Dutch sea trade. By the middle of the 1640s the continued costs of this war had aroused such stringent criticism in the States of Holland, that in 1646 the province promptly refused to contribute her share of the military budget. Because the province of Holland alone provided for 58% of the Republic's total taxation incomes, she had hereby performed a powerful measure, which finally induced Frederik Hendrik to loosen his grip over the Republic's participation to the peace talks. Henceforth Frederik Hendrik's personal delegate at Münster started to support the States of Holland and the other provinces in their negotiations with Spain, and a peace treaty between the Spanish monarchy and the Republic was eventually signed at Münster and The Hague in the spring of 1648.⁶

With the signing of the Peace of Münster a new era of international recognition commenced for the Dutch Republic, but not all the members of the House of Orange would readily agree to Frederik Hendrik's latest change of policy. This latter aspect became increasingly apparent after Frederik Hendrik's death in March 1647, when the Stadholderate passed to his son William II of Orange (1626-1650). In line with his ancestors to the Orange dynasty, William II was currently seeking for an opportunity to prove himself as a military strategist, but a lack of reputation and prestige prevented him from averting the Spanish peace.⁷ During the immediate aftermath of the signing of

⁵ In addition to the States General the Stadholderate was an office that had likewise remained from the period under Spanish rule, when this function had been executed by three provincial governors in service to the Spanish king. At the start of the Revolt in 1572 William the Silent (who had previously functioned as Stadholder under King Philip II from 1559 until 1567) was the first person to be autonomously appointed Stadholder by the rebelling provinces of Holland, Zeeland, and Utrecht. After his succession by his son Maurits in 1585 (who additionally became Stadholder of Gelderland, Utrecht, and Overijssel in 1589), the Stadholderate became to be exclusively applied to the members of the Orange-Nassau dynasty, which lent the office a somewhat royal air. Even if the Stadholder possessed an overarching authority over the provinces, the range of his rule could by no means be equated to that of other seventeenth-century monarchical powers; since the office was commonly shared by two representatives, who each had to reckon with the individual sovereignty of the provinces to the States General (cf. Blom 1995: 41; Israel 1995: 186, 237, 300-6; Panhuysen 2009: 33; Prokhovnik 2004:18-19).

⁶ Cf. Israel 1995: 286, 506-44; Panhuysen 2009: 33.

⁷ Cf. Israel 1995: 544-6, 595-97. Simultaneously with the Eighty Years' War, the Thirty Years' War (1618-1648) in Germany was also ended by virtue of the overarching Peace of Westphalia. This conflict had left the German territories in a state of devastation, since more than a third of their population had perished during the war. As a result, France with its twenty million inhabitants now became the most populous nation by far in Europe. Whereas the looming international threat that followed from this demographic shift could still be warded off for another two decades, the young Stadholder would prove a

the Peace of Münster a period of international stability and diplomatic calm had, thus, commenced for the Dutch Republic: while the German principalities were still recovering from the Thirty Years' War; with the British Isles being entangled in a disruptive civil war; and with the weakened Spanish armies in the Southern Netherlands functioning as a yet strong-enough buffer against France. It had been on the eve of this promising moment in Dutch history - when the Dutch Republic uniquely acquired the status of an internationally acknowledged sovereign nation -, that Johannes Swartenhengst was born in the northern quarter of the province of Holland.

1.1.2 Swartenhengst's Family Background

To be more precise, Johannes Swartenhengst originated from the town of Alkmaar, as is indicated by the *Album studiosorum* of Leiden that witnessed his matriculation at the university on 1 May 1664.⁸ On this occasion (as well as at the time of the first renewal of his enrolment at the university on 7 February 1665) Swartenhengst said he was twenty years old, which means that theoretically he should have been born between 8 February 1644 and 30 April 1644. Since the matriculating students at Leiden are known to have frequently testified to an older age in order to enjoy the full exemption from taxation on alcohol from the age of twenty onwards, Swartenhengst might in fact have been born even somewhat later.⁹ No documentation on Swartenhengst's baptism was preserved in Alkmaar's regional archive, which might otherwise have shed a further light on his date of birth, as well as on the identity of his parents.

For the identification of his parents the rarity of Swartenhengst's family name has in any case been a great help: during the complete seventeenth century there is only one person by the name of 'Swartenhe(ij)ngst' registered in Alkmaar's regional archive. For this reason I assume that this man by the name of Pieter Jansz Swartenheijngst will have

more urgent source of concern for the domestic peace and quiet in the Dutch Republic (cf. Panhuysen 2009: 17-18, 20, 25-6).

⁸ "Johannes Swartenheynst Alcmarianus. 20, T[heologiae]" (cf. Rieu du 1875: 516).

⁹ For the accuracy of the age of the matriculating students at Leiden cf. Zoeteman-van Pelt 2011:121-7. For Swartenhengst's annual renewal of his inscription in Leiden's *recensielijsten* at the start of the academic year from February 1665 until February 1670 cf. University of Leiden, *Archieven van de Senaat* [ASF] 35-40.

been Johannes' father, concerning whose life some basic facts were preserved.¹⁰ Part of the archive material on Pieter Jansz Swartenheijngst concerns the burials of four of his children at the Saint Laurens Church in Alkmaar between July 1638 and October 1645. Furthermore Pieter Jansz Swartenheijngst also bought a house in this city on 4 May 1644, which was located on the northern side of the Laet within a stone's throw from the Saint Laurens Church to the northwest and the fish market to the east.¹¹ It was only a few years after Johannes' birth when his father died on 9 May 1646, whence he was also buried at Alkmaar's Saint Laurens Church.¹²

After Pieter Jansz Swartenheijngst's death his wife Jannetjen Jans stayed behind as his widow, who quickly remarried as is indicated by the prenuptial agreement that was signed at 'the house of the bride on the northern side of the Laet' on 9 September 1646. On this occasion Jannetjen Jans was assisted by her brother Aelbert Jansz Schilder; and her future husband, Jan Jacobsz alias Jan Broer Timmerman, was accompanied by an old-deputy mayor (*oud-schepen*) named Jacob van der Oest.¹³ By virtue of this prenuptial agreement Jannetjen Jans was allowed to preserve personal control over her estate and legacy, which were hereby simultaneously safeguarded as the subsequent inheritance for her own children.¹⁴ The matrimonial ceremony between Jannetjen Jans

¹⁰ In Johannes' case his family name was, in fact, also frequently printed 'Swartenheyn(g)st' in some of the administrative documents at Leiden's city archive; as well as in the *Album studiosorum* from the university of Leiden (cf. note 8); and in his doctoral disputation (cf. Swartenhengst [SWH] 1670: title page, l. 24). It was only the practical disputations that he presided over, in which his name is always spelled 'Swartenhengst'.

¹¹ Pieter Jansz Swartenheijngst bought this property for the not inconsiderable amount of 1440 Guilders, to which an additional 775 Guilders were added for the yard with summer kitchen and backroom (cf. Alkmaar ORA 152, Akte 68; Alkmaar ORA 153, Akte 88). For a view of Alkmaar's fish market in 1729 and a contemporary image of the Saint Laurens cf. the illustrations on page 26.

¹² For Pieter Jansz Swartenheijngst's burial cf. Alkmaar DTB 1618-1670. His four deceased children were buried on 1 July 1638, 7 July 1640, 9 October 1641, and 30 October 1645 (cf. id.). For this information I like to thank Jan Willem Balder, who already investigated Swartenhengst's family relations in preparation to my visit at Alkmaar's regional archive. Besides, I want to thank Ineke Sandbrink and Jan van Baar, who were always rapid and kind in responding to my additional questions by e-mail.

¹³ For the prenuptial agreement cf. Alkmaar ONA 157, Akte 136. Jannetjen Jans' brother - Aelbert Jansz Schilder - lived up to their family name since he was a painter in his actual profession. An interesting local detail is that he helped with the painting decorations of the organ in the Saint Laurens Church in 1643 (cf. Vries de 1996: 141, 159).

¹⁴ During the seventeenth century most marriages were conducted without a prenuptial agreement, which implicated that the total control over a married woman's possessions and legacy was automatically transferred to her husband in seventeenth-century Holland. Prenuptial agreements were mostly demanded for conjugations between rich families, or in the case of large financial deviations between both parties. Since the prenuptial agreement between Jannetjen Jans and Jan Jacobsz explicitly indicates that their

and Jan Jacobsz was conducted on 23 September 1646, and the two children that later resulted from their marriage were baptised in the Reformed religion in the Saint Laurens Church in 1651 and 1654.¹⁵ During the subsequent course of her second marriage Jannetjen Jans once more became a widow, before she herself also died in the wake of an epidemic on 14 February 1657.¹⁶

1.1.3 Orphanage and Latin School

And hence Johannes became a full orphan when he was only thirteen years old. The documentation on the life of his parents takes an end with the posthumous sale of their house on 17 May 1657, which was bought by a cousin on his mother's side named Jan Aelbertsz Schilder.¹⁷ Importantly the deed of sale of their house refers to the unnamed 'children of Pieter Jansz Swartenheijngst and Jannetjen Jans', who had been placed in an orphanage that was administered by Engel Huybertsz Hildernisse, Camiel Lotsen, and Cornelis Schagen-Hoochlandt. Although it is unsure which exact orphanage these regents were administering, they in any case supervised the inheritance of their orphans since their approval is explicitly indicated in the sale contract of the house.¹⁸ Almost certainly Johannes must have been one of these children that had remained from Pieter Jansz Swartenheijngst's marriage to Jannetjen Jans (which is furthermore supported by the fact that Johannes' firstborn son from 1666 was to be named Pieter).¹⁹ Because Pieter Jansz Swartenheijngst and Jannetjen Jans had both been official citizens to the

contribution to the marriage was of 'equal value', it may be assumed that they both possessed respectable assets (cf. Alkmaar ONA 157, Akte 136; Schmidt 2001: 179-83).

¹⁵ For Jannetjen Jans' second marriage cf. Alkmaar DTB 1636-1649, Inv. 24, Akte 8776. The first child, named Jacob, was baptised on 1 January 1651 (cf. Alkmaar DTB 1646-1655, Inv. 25, P. 15936). The second child, named Anna, was baptised on 19 July 1654 (cf. Alkmaar DTB 1646-1655, Inv. 25, P. 16373).

¹⁶ For Jannetjen Jans' date of decease cf. DTB 1618-1670, Inv. 40, Akte 15797. It is not a 100% certain whether Jannetjen Jans died by cause of the plague, but this is a plausible guess since the epidemic had already killed 10% of Alkmaar's population in 1656 and thereupon continued throughout 1657 (cf. Noordegraaf & Valk 1996: 54, 228, 234).

¹⁷ For the sale contract of Pieter Jansz Swartenheijngst's house cf. Alkmaar ORA 157, Akte 67. The house would remain in the Schilder's unit of the family for another few decades (cf. Alkmaar ONA 345, Akte 107).

¹⁸ Cf. Alkmaar, ORA 157, Akte 67. Apart from the fact that Cornelis Schagen-Hoochlandt was the son of Alkmaar's Burgomaster Jacobus Schagen-Hoochlandt, no further information was found concerning these three orphanage regents (cf. Aa van der 1874a: vol. 17.1, 214).

¹⁹ For Pieter's baptism cf. Leiderdorp, *Dopen NH* 1666, Inv. 1474, Folio 72v.

city of Alkmaar, a plausible guess might be that their children were placed under the jurisdiction of the Citizens' Orphanage that was exclusively destined for the offspring of Alkmaar's freemen. Whether this is an accurate guess or not, it may in any case be concluded that after Jannetjen Jans' death in the winter of 1657, Johannes will have spent the remaining years of his childhood in one of Alkmaar's public or private orphanages.²⁰

At the time when Johannes had become an orphan at the age of twelve, he will also almost certainly have been attending Alkmaar's Latin school that was next to the aforementioned Citizens' Orphanage.²¹ Although no documentation on Swartenhengst's enrolment was preserved, it is difficult to imagine how he could otherwise have matriculated as a theology student at Leiden seven years later without previously attending this school. Even if no official demands were made concerning the preparatory education of the matriculating students at Leiden (other than them swearing an oath and paying the matriculation fee of fifteen nickels), a sufficient knowledge of the academic *lingua franca* was still indispensable for the pupils to follow the classes.²² On this account the Latin schools in the Dutch towns had specifically developed into the designated training institutes for the Republic's future students, ever since the first university of the rebelling Northern Netherlands had been erected at Leiden in 1575. When the Latin school in Alkmaar was subsequently founded in 1584, for example, its purpose had been explicitly defined as:

“[...] the breeding of sprouts of knowledge for the university of Leiden, who could henceforth serve the benefit of Church and State.”²³

²⁰ On the Citizen's Orphanage cf. Bruinvis 1909: 7. No reference to Pieter Jansz Swartenheijngst's child was found in the 'Weeskamer' at Alkmaar, which institute frequently concerned itself with the interests of the under-aged in matters of heritage.

²¹ For an image of Alkmaar's Latin School and the Citizens' Orphanage cf. Illustration 4 on page 27.

²² Cf. Bloemendal 2003: 9; Otterspeer 2000: 256-7; Simone di 1996: 289-93.

²³ The original quotation in Dutch reads as follows: “[...] omme daerinne spruyten der kennisse voor de Leydsche Universiteyt aentequeecken ter opbouwinge der Kerke Gods en Conservatie der Politie” (cf. Gelder van 1905: 3 as cited in Bloemendal 2003: 10-11; Otterspeer 2000: 222). After the erection of the university at Leiden in 1575 the province of Friesland also established a university in Franeker in 1585; Groningen followed suit in 1614; thereafter Utrecht in 1536; and finally Gelderland upgraded the academy at Harderwijk into a university in 1648 (Israel 1995: 569-75, 615).



Above:
Drawing by
Cornelis
Prunk of
Alkmaar's
fish market
seen from
the
Kraanbuurt
(1729).
Beneath:
Otto in
front of the
Saint
Laurens
Church in
Alkmaar.



Anonymous drawing of the rector's house with the stone-framed doorway to the Latin School (left), which neighbored the Citizens' Orphanage on the Doelenstraat (right) (1799).

On account of this preparatory function, the main aim of these sixteenth- and seventeenth-century Latin schools was to instruct boys between the ages of seven and sixteen in the passive and active command of the Latin language, which was taught on an already higher level than in the older convent and parish schools. Like their medieval predecessors, the by now Reformed Latin schools still paid strict attention to the observance of the catechism and church attendance, but meanwhile their concurrent humanistic orientation instigated them to place a far more thorough focus on the knowledge of the ancient languages and literature. On this account such additional subjects as ancient Greek, Hebrew, logic, rhetoric, mathematics, and cosmography were frequently also taught.²⁴

Swartenhengst will have commenced his instruction at Alkmaar's Latin school around the age of seven, in a period when these schools were being attended by 14 % of the school-going boys in Holland (5% of all these boys eventually continued their way to university).²⁵ On account of these percentages it can clearly be concluded that Johannes enjoyed a privileged position, at least in as far as his education was concerned. In order for an orphan to bear the expense for both the Latin school and university, it is

²⁴ Cf. Bloemendal 2003: 10-12; Otterspeer 2000: 222-4; Panhuysen 2005: 33, 37-40.

²⁵ Cf. Mijnhardt 2003: 1011; Otterspeer 2000: 222-3.

necessary that Swartenhengst had either obtained some kind of scholarship, or he should have received a considerable inheritance upon his parents' decease.²⁶

1.2 UNIVERSITY STUDIES

1.2.1 The Historical-Political Context after 1648

Apart from Swartenhengst's presumed attendance at Alkmaar's Latin school and his mother's decease in 1657, not many other details are known from the period prior to Swartenhengst's matriculation at the university of Leiden in 1664. From the general historical background of these years, however, it can be shown that Swartenhengst witnessed some turbulent events on the Dutch political scene during his childhood and adolescence. In spite of the initial sense of security that had proliferated after the conclusion of the Eighty Years' War, an unforeseen downside of the peace settlement with Spain was that it removed the hitherto vital need for co-operation amongst the seven provinces in order to resist their common enemy. In the new situation the attention of the provinces would soon be drawn to the internal imbalances that had been created by the Peace of Münster, which benefitted Holland's sea trade but damaged the economy of Zeeland and some of the inland provinces. In addition, a coinciding rise in the grain price added to the overall dissatisfaction amongst the Dutch populace. These developments provided the young Stadholder William II with the ideal circumstances to challenge Holland's supremacy.²⁷

One sign of William II's intention to undermine Holland's hegemony over the other provinces was the Stadholder's active participation in the Reformation of the Generality

²⁶ During the seventeenth century the majority of the students at Northern European universities originated from a bourgeois environment, which corresponded to the rising costs of academic life and the ongoing decrease in scholarships for the poor. Research for the period 1650-1660 demonstrates that 75% of the Dutch students at Leiden came from the economical upper class, whereas 20% originated from a modest to poor background, and a remaining minority belonged to the nobility (cf. Otterspeer 2000: 267-9; Otterspeer 2003: 611; Simone di 1996: 311-16).

²⁷ Cf. Israel 1995: 597-8, 610-19.

Lands, which did not only earn the Prince substantial loyalty amongst the ranks of the public church, but also raised his popularity with the Dutch citizenry. Due to their current pro-Spanish policy the members of Holland's provincial States were meanwhile becoming ever more notorious for their lenient attitude towards Catholicism, as well as various other confessions that deviated from the Reformed religion (which had officially been established as the Republic's public church at the signing of the Peace of Münster). Although the relation between state and church was a highly complicated affair in the Republic, the affiliation between the House of Orange with the orthodox wing in the Dutch Reformed Church had been very straightforward at the moment. Whereas the popularity of the Prince of Orange was thus increasing from 1648 onwards, the public opinion on Holland's regents was simultaneously deteriorating within the remaining provinces, and even in Holland's own towns division was on the rise.²⁸

A precarious situation emerged for Holland's provincial States, when in May 1650 the province decided to single-handedly disband a far larger share of army units than was approved by either the Stadholder or States General. Seeing that decisions concerning the size and budget of the military were usually agreed upon by the seven provinces together, the remaining members of the States General – now - sent out a visitation commission in order to reprimand Holland's voting towns. William II was supposed to guide this committee, but soon he had seized the command over the States' army and released its forces against the city of Amsterdam. Even if these troops never entered the city, the Stadholder's surprise attack yet achieved the desired effect in forcing Holland to accept the increased troop- and expenditure levels that were mutually agreed upon by the seven provinces together.²⁹ In spite of the illegitimacy of this strategic intervention,

²⁸ Cf. Israel 1995: 598-602; Bunge van 2001: 69; Prokhovnik 2004: 105. After the Peace of 1648 the Generality Lands (whose provincial States held no vote in the States General but were instead coordinated by this institute) comprised the northern parts of States Flanders and States Brabant, Maastricht and the Overmaas, as well as Wedde-Westerwolde (in the eastern part of Groningen). Now that the war against their previous Spanish occupants had ended, the States General and *Raad van State* could finally devote their attention to the repression of Catholic worship in the Generality Lands (with the exception of Maastricht), while they simultaneously tried to gather fresh support for the Reformed Church in these areas. Due to the intensity of the foregoing Spanish Counter-Reformation it, nevertheless, proved exceedingly difficult to fully eradicate Catholicism from the Generality provinces, and to worsen matters the Calvinistic restoration also had to compete with the confessionalising force of other Protestant creeds (cf. Israel 1995: 297, 598-602, 658-60).

²⁹ William's rapid seizure of the military command was facilitated by his corresponding office as captain-general over the Republic's armed forces. Furthermore he also received help from his cousin Willem Frederik of Nassau, who steered the garrisons in Gelderland towards Amsterdam, while William was

William II was presently enjoying substantial support amongst the other provinces, and if it had not been for his sudden decease in November 1650 the Republic's peace settlement with Spain might as yet have come under pressure.³⁰

As matters stood, William II died at the age of twenty-four while his firstborn son had yet to be born, which left Friesland as the only province where a Stadholder of the Orange-Nassau dynasty was currently in charge.³¹ With her recent defeat freshly in mind Holland had quickly usurped the Stadholder's previous qualifications in her own dominion, in order to re-establish her political ascendancy over the remaining provinces. In the Great Assembly in 1651 four of the remaining provinces followed Holland in her present decision to leave the corresponding positions of Stadholder and captain-general vacant until further notice. This decision of the provinces, now, officially confirmed the onset of the First Stadholderless Period, during which no Stadholder would be appointed in the provinces of Holland, Zeeland, Gelderland, Utrecht, and Overijssel until the summer of 1672.³²

If the current absence of a Stadholder was favourable to the Spanish peace and Dutch commerce, the corresponding lack of a captain-general certainly did not bode well for the Republic's military efficiency and leadership. During the First Anglo-Dutch War that commenced in 1652 the losses on the Dutch side had been tremendous, and this strategic setback generated an immediate upsurge of 'orangist' sentiment in favour of the now three-year old Prince William III of Orange (1650-1702). The English were

conducting various arrests in Holland. A comparable coup by a Prince of Orange had been staged in 1618, when Prince Maurits (his half-uncle) similarly deployed the Generality's army against Holland (and this time also Utrecht). At this point Maurits had still encountered a strong opponent in Holland's Land's Advocate, Johan van Oldenbarnevelt (1547-1619), who was sentenced to death in the trial that succeeded the coup. Henceforth Maurits abolished the office of Land's Advocate and instead appointed a Pensionary of Holland, which change of procedure would allow him to wield an unprecedented authority on the Dutch political scene (cf. Israel 1995: 445-60, 604-9; Panhuysen 2005: 88-92, 98-100; id. 2009: 33).

³⁰ Cf. Bunge van 2001: 68-9; Israel 1995: 602-9; Panhuysen 2005: 94-103, 107-9; id. 2009: 32-4.

³¹ After the murder of William the Silent in 1584 the Stadholderate in Friesland had been succeeded by his nephew Willem Lodewijk, Count of Nassau, and henceforth this province exclusively appointed members of the Nassau line as Stadholder. Groningen and Drenthe frequently followed the same course, in contrast to the remaining provinces that were only willing to nominate the Princes of Orange to this position. Due to the present lack of a grown-up heir to the Orange dynasty Willem Frederik (1613-1664) evidently saw his chance to extend his Stadholderate to the remaining provinces. In accordance with the historical tradition, however, he only managed to effectively convince Groningen and Drenthe to appoint him (cf. Israel 1995: 304, 705-7, 728-33; Panhuysen 2005: 115, 202-8, 227-31).

³² Cf. Israel 1995: 700-13; Panhuysen 2005: 110-16.

willing to ratify a peace agreement on 22 April 1654, but this treaty included an important secret annexe in which Holland promised never again to appoint a member of the Orange-Nassau dynasty as Stadholder or captain-general. Even if their near victory had rendered the English the dominant party during these negotiations, it has remained a matter of dispute whether this so-called Act of Seclusion was truly imposed by Oliver Cromwell's (1599-1658) republican regime; or whether it had in fact been devised by Holland's Pensionary Johan de Witt (1625-72).³³

De Witt had been nominated as Holland's Grand Pensionary on 30 July 1653, and on account of his father's previous arrest during William II's coup d'état in 1650, it was no great secret that Holland's new leader carried some personal reservations towards the House of Orange. Regardless of whether it was Cromwell or De Witt who should be held accountable for the abolition of the Stadholderate, great uproar inevitably ensued once the truth concerning Holland's concealed manoeuvre leaked out into the other provinces.³⁴ In spite of these internal uproars, De Witt managed to preserve the validity of the Act of Seclusion until the fall of the English Commonwealth in 1660. At this point the restoration of Prince William III's uncle, King Charles II of England (1630-85), no longer rendered it feasible to ignore the political ambitions of his little nephew in the Dutch Republic.³⁵ For this reason De Witt agreed to offer the Prince an official States' education, which went accompanied by the promise that William III would thereupon be allowed to fulfil some undefined future offices. In addition, an Anglo-

³³ Cf. Israel 1995: 702-26; Panhuysen 2005: 110-38, 146-56.

³⁴ At the time of the signing of the peace with England, Johan de Witt and his confidants had exclusively informed the members of the States of Holland on the secret condition concerning the Exclusion of Stadholderate. Once the rumour of this Act came to the fore in the remaining provinces great commotion immediately arose, whereupon De Witt personally attempted to justify Holland's course of action by means of a treaty entitled *Deductie*, in which Holland's Pensionary made a decided case for the desirability of a Stadholderless regime that he labelled under the heading of 'True Freedom'. Despite De Witt's efforts, the intrinsic urge for a member of the Orange-Nassau dynasty to guide the Republic remained omnipresent amongst the Dutch population, which sentiment later appeared to be a forceful motive during the overthrow of De Witt's stadholderless regime in 1672 (Israel 1995: 724-6; Panhuysen 2005: 98-107, 143-5, 157-61).

³⁵ William III had been born from the marriage between William II of Orange and Mary Stuart of England (1631-61), who was the daughter of King Charles I and the sister of the presently restored King Charles II. After the execution of her father in 1649 and her husband's subsequent decease in 1650, Mary Stuart and her son had been facing an uncertain future in the Stadholderless Dutch Republic. Due to the current restoration of her brother Charles II, a widespread desire for an alliance with England again proliferated amongst the Dutch royalists. Regardless of the wars between England and the Dutch Republic that were yet to follow, the rehabilitation of his uncle permanently benefitted William III's political status in the Dutch Republic (cf. Israel 1995: 752-3, 774-76; Panhuysen 2005: 264-8, 280-4, 288-9; Poelgeest van 1990: 106).

Dutch alliance was signed in 1662 that should have further solidified the relations between both nations, which were nevertheless simultaneously crumbling under their conflicting commercial and colonial interests.³⁶

1.2.2 Swartenhengst's Matriculation at Utrecht

As was indicated at the beginning of this chapter, the onset of the First Stadholderless period had been a political milestone in the history of the Dutch Republic, which simultaneously affected the intellectual climate at the universities during the subsequent two decades. During his studies at both Utrecht and Leiden Swartenhengst will, therefore, certainly have been influenced by the progressive outlook that currently proliferated amongst most of the professors.³⁷ After completing the Latin school in Alkmaar, Swartenhengst had hereupon firstly enrolled himself in the philosophical faculty at Utrecht during the early 1660s, if C.W. Bruinvis' attestation is correct:

“[...] that Johannes was studying philosophy at the university of Utrecht together with his school friends from Alkmaar, Adriaan Bijl and Salomon van Til.”³⁸

Bruinvis derived this quote from a by now untraceable disputation, entitled *De concursu Dei*, that was supervised by the subregent of Leiden's *Staten College* Franciscus Burman (1628-79) and defended by the Alkmaar historian Cornelis Schoon (1645-84) in June 1662.³⁹ If Bruinvis' claim concerning Swartenhengst's attendance at Utrecht's

³⁶ Cf. Panhuysen 2005: 284-9; Prokhovnik 2004: 92-3. For the historical context of the Second Anglo-Dutch War cf. Israel 1995: 748-58, 766-74; Panhuysen 2005: 280-93, 301-6, 324-7, 332-40.

³⁷ For the change of atmosphere that occurred at both Leiden and Utrecht (at which latter university the Voetians were now forced into the defensive) from the early 1650s until 1672 cf. Bijl van der: 78-84; Cramer 1889: 100-1, 120-1; Israel 1995: 804-9, 819-20, 889-99; McGahagan 1976: 17-19, 321-4, 331-4; Poelgeest van 1990: 110-15; Ruler van 2003f: 1032-33.

³⁸ The original quotation in Dutch reads as follows: “Schoon (Cornelis) [...] kwam 30 Jan 1662 in het Staten-collegie te Leiden, verdedigde onder Burman in Juni 1662 zijn dispuut *de Concorso Dei*, opgedragen aan twee geneesheeren van Alkmaar en aan zijne te Utrecht in de filosofie studeerende alkmaarsche schoolvrienden Adriaan Bijl, Salomon van Til en Johannes Swartenhengst” (cf. Bruinvis 1912: 1295-6; also cf. id. 1888: 45).

³⁹ I did not manage to retrace this disputation neither at the university libraries of Utrecht or Leiden, nor in the ‘Kaartregister Van der Woude’, nor in the Picarta database. Apart from Adriaan Bijl who registered at Utrecht in 1665 (*Album* 1886: 59), neither Johannes Swartenhengst nor Salomon van Til ever seems to have officially matriculated at the university in as far as can be derived from the *Album studiosorum*. In

philosophical faculty is accurate, then Swartenhengst will have been studying the classical languages with J.G. Graevius (1632-1703), practical philosophy with D. Berckringer (1598-1667), physics and mathematics with J. de Bruyn (1620-75), and logic and metaphysics with R. van Mansvelt (1639-71).⁴⁰ In regard to the content of Swartenhengst's education, it is important to note that the university of Utrecht was currently no longer the exclusive bastion of its rector Gisbertus Voetius (1589-1676), who during the previous decades had devoted much of his attention to protecting the Reformed orthodoxy against such novelties as could be found in the writings of René Descartes (1596-1650). By the early 1660s, however, Cartesianism had truly created a breathing space for itself at Utrecht, which is demonstrated by the presence of the *Collegium Cartesianum sive Wittianum* at the university.⁴¹

Most of the professors in the philosophical faculty, such as Graevius, De Bruyn, and Van Mansvelt had been members of this College of Savants, and they will probably have been Swartenhengst's first instructors in Cartesianism. I am inclined to believe that Swartenhengst's subsequent decision to matriculate as a theology student at Leiden had been stimulated by the chairman of this College, the pro-Cartesian theologian Franciscus Burman.⁴² As was mentioned previously, Burman had briefly functioned as a subregent for the theology bursaries at Leiden's *Staten College* from 1661 until 1662, but during this latter year he left for a new appointment as professor in theology at Utrecht. After Burman's departure a close connection was, yet, preserved with his former colleagues in the theology department at Leiden, where the orientation of his father-in-law - Abraham Heidanus - must have contrasted sharply with Voetius' strict

Salomon van Til's case, however, various other sources likewise confirm that he was studying philosophy at Utrecht during the early 1660s (cf. Aa van der 1874d: vol. 18, 129-36; Knipscheer 1937: vol. 10, 1027-8; Kobus & Rivecourt de 1870: vol. 3, 46-7; Kok 1792: vol. 28, 237-46; Wall van der 2003: vol. 2, 981-3). On this account I believe that Bruinvis' report on Swartenhengst's studies at Utrecht might well have been true, - especially if one takes into consideration that the *Album studiosorum* of the university is unrepresentative for some years after 1657, due to the sudden cancellation of the taxation freedom on alcohol upon inscription (cf. Mijnhardt 2003: 1009-10; Wansink 1981: 8). I could not check the university's *recensielijsten* that were only preserved for the period 1795-1920.

⁴⁰ On the philosophical lecturers at Utrecht's university during the early 1660s cf. Aa van der 1874: vol. 2.1, 359; id. 1874d: vol. 18, 129-36; Frijhoff & Spies 2004: 302-3; Soermans 1704: 147-8.

⁴¹ For a concise biographical overview on Gisbertus Voetius and his influence at the university cf. Ruler van 2003f: 1030-9. Concerning the breakthrough of the Cartesian philosophy at Utrecht cf. Verbeek 1992; for the *Collegium Cartesianism* or *Wittianum* specifically cf. id.: 75, n.170; also cf. Hartog 1876: 77-114.

⁴² On the members of this *Collegie der Scavanten* cf. Hartog 1876: 104-6; McGahagan 1976: 322-3.

dogmatic aspirations at Utrecht's theological faculty.⁴³ It might have been for this reason of intellectual liberty that Burman advised Swartenhengst's fellow from Alkmaar, Salomon van Til (1643-1713), to continue his theological studies at the university of Leiden.⁴⁴ Seeing from Swartenhengst's later writings that he also demonstrated an open fascination with Cartesian philosophy, it is certainly not unlikely that it was Burman who likewise instigated him to commence or continue his theological studies at Leiden.

1.2.3 Swartenhengst's Studies and Marriage in Leiden

At the time when Swartenhengst arrived in Leiden during the spring of 1664 the Anglo-Dutch relations had by then deteriorated to such an extent, that the Dutch Republic was actively preparing its fleet for a second war against England. This battle effectively commenced in the spring of 1665, but because all the fighting went on at sea Swartenhengst's daily life and his concurrent studies at Leiden's theological faculty will have remained relatively unaffected by it.

As appears from the university's *recensielijsten*, Swartenhengst had rented a room on the Nieuwe Rijn in central Leiden upon his arrival at the university in May 1664. By the start of the academic year in 1667, however, he had moved in with another landlord: a change of address that was probably related to the fact that he had married a girl by the name of Dieuwertgen Willems in the autumn of 1666. Prior to their wedding Dieuwertgen had lived close to the Nieuwe Rijn and she might have met Swartenhengst through family relations, since the latter's cousin - Crijn Jansz - was also related to

⁴³ Burman became Abraham Heidanus' son-in-law after marrying the latter's daughter in 1665, and if Hartog's article on the College of Savants is correct, then Heidanus himself must also have stood in a regular correspondence with this College (cf. Hartog 1876: 109). Burman furthermore sustained a connection with the Leiden theologian Johannes Cocceius, with whom he had still corresponded on the latter's interpretation of the Cartesian doubt in 1668-69 (cf. Cramer 1889: 76-7; Ruler van 2003c: 400; Sluis van 2003: vol. 1, 190-1).

⁴⁴ On Burman's relation to Salomon van Til at Utrecht during the early 1660s cf. Knipscheer 1937: vol. 10, 1027-8; Kobus & Rivecourt de 1870: vol. 3, 46-7; Kok 1792: vol. 28, 237-46. The third 'school friend' from Alkmaar, Adriaan Bijl, would eventually also arrive at Leiden on 16 September 1665, where he likewise matriculated in the theology department (cf. Rieu du 1875: 524).

Dieuwertgen as her brother-in-law.⁴⁵ Most students did not marry before the end of their studies, but in Johannes' case the engagement to Dieuwertgen seems to have been instigated by a matter of force, since their firstborn child had already arrived more than a week before the wedding. This child by the name of Pieter was baptised to the Reformed religion in Leiderdorp on 17 October 1666, whereupon Johannes and Dieuwertgen received immediate permission to engage in marriage, which ceremony was conducted at a small distance in Koudekerck on 24 October 1666.⁴⁶

At a time when abstinence before marriage was the prescribed guideline, it had certainly been exceptional for Swartenhengst to marry his bride after the birth of their child.⁴⁷ Hence, it does not seem to have been a complete coincidence that shortly thereafter he transferred his main focus from the theological to the philosophical and medical department. Dieuwertgen's pregnancy did, nevertheless, not immediately affect his theological studies at the university, since the acts from the Leiden consistory still indicate that he obtained a testimony for his preparatory exam in the classis of Alkmaar on 2 July 1666. As these *acta* confirm, Swartenhengst thereupon became a proponent in the Dutch Reformed Church, which meant that theoretically he was allowed to preach. One year later Swartenhengst was, however, no longer in the clear with the Leiden consistory; for when he demanded an attestation on 20 May 1667 his request was refused until he had given 'sufficient satisfaction' on the improper proceeding of his marriage. In imitation of the classis of Alkmaar the Leiden consistory then revoked this suspension in August 1667, when Swartenhengst had promised to embark upon 'a more edifying and pious path in life'. Whether he was ever given the opportunity to preach in

⁴⁵ The name of Swartenhengst's landlords can be found in the *recensielijsten* for the years 1665-70 cf. University of Leiden, ASF 35-40. On Dieuwertgen's home address and their respective family relations to Crijn Jansz and Trijntje Willems cf. Leiden, *Nederlands Hervormd Ondertrouw* (1575-1795) 1666, S-204v.

⁴⁶ For Pieter's baptism cf. Leiderdorp, *Dopen NH* 1666, Inv. 1474, Folio 72v. For Swartenhengst's marriage to Dieuwertgen Willems cf. Leiden, *Nederlands Hervormd Ondertrouw* (1575-1795) 1666, S-204v.

⁴⁷ In his statistic for the period 1670-1830 D.J. Noordam (1987: 162) demonstrates that, in fact, one out of four women seems to have already been pregnant on their day of the wedding, but these women were mostly pregnant for a maximum of four months' time (also cf. Bakker et al. 2006: 160-4; Pot 1994: 285). In all likelihood it will have been Swartenhengst himself who had delayed the marriage for personal reasons, although the slight chance exists that earlier on his guardians had refused to provide him with the obligatory permission to marry. A marriage could effectively be prevented or delayed if the parents or guardians did not provide the under-aged bride or groom with their approval (cf. Zoeteman-van Pelt 2011: 378-9).

one of the Reformed congregations is unknown, but his private conduct will probably not have been looked upon as an entirely suitable example for a future minister.⁴⁸

The fact that Swartenhengst soon replaced his focus from the theological to the philosophical studies is already firstly indicated by his defence of a practical disputation on Metaphysics on 3 July 1666 under the supervision of Arnold Geulincx (1624-69).⁴⁹ I assume that it was Geulincx himself who was largely responsible for the content of this disputation, which touched upon various aspects of his metaphysical and logical views and was posthumously edited under the latter's name.⁵⁰ Swartenhengst's decision to continue his studies in the philosophical department contrasted with the common practice amongst the students, who generally continued their studies in one of the higher faculties after spending some initial years in the propaedeutic *artes*. By the early 1660s, however, the department of the *artes* at Leiden had surpassed its original preparatory function and was, in fact, no longer considered as that much inferior in comparison with the principal faculties of theology, law, and medicine.⁵¹ More specifically, the importance of the philosophical faculty at Leiden was presently elevated by the fact that it was in the domain of natural philosophy (or physics) through which the new science was finding its way into the Dutch lecturing halls.⁵²

As E.G. Ruestow convincingly points out in his work on *Physics at 17th - and 18th - Century Leiden* (1973), the Cartesian philosophy derived its popularity from the fact

⁴⁸ For the acta of the Leiden consistory cf. Leiden, *Nederlands Hervormde Kerkenraad* (1666-1681), Arch. Nr. 511B, Inv. Nr. 6. For the procedure by which the Leiden consistory issued the testimonies and attestations for the theology students at the university cf. Cramer 1889: 82-89. I would like to thank Professor Rienk Vermij, who firstly informed me about the references to Swartenhengst in these acta.

⁴⁹ Cf. Molhuysen 1918, vol. 3: 192-3*; also cf. Aalderink 2009: 8-9.

⁵⁰ For Swartenhengst's defence of this disputation entitled *Disputatio metaphysica continens Isagoges partem alteram* cf. 'Series eorum quae hoc volumine continentur' in *Arnoldi Geulincx annotata maiora in Principia Philosophiae Renati Descartes: Accedunt opuscula philosophica eiusdem auctoris* (1691). The posthumous edition of the disputation itself can be found on pages 283-7 in this same work. For later editions cf. Land 1891-3 vol.2: 476- 80; or for an identical copy cf. Vleeschauwer de 1965: 476-80. It is generally assumed that disputations that were published under the name of the *praeses* were also written by the latter, in which case a list with the names of the defending students was frequently added (cf. Ahsmann 2000: 249; Dibon 1954: 39, 43; Otterspeer 2000: 236; Wansink 1981: 23).

⁵¹ Cf. Frijhoff 1996: 358-9; Mijnhardt 2003: 1010; Otterspeer 2003: 609-10; Wansink 1981: 5-6, 28-9. In Swartenhengst's case he had probably also firstly enrolled at Utrecht's philosophical faculty in preparation of his subsequent matriculation as a theology student at Leiden. It was a somewhat exceptional choice to thereupon reverse his studies to the philosophical department, in which discipline only 3% of all the doctoral degrees were issued (cf. Otterspeer 2003: 610).

⁵² Concerning the breakthrough of the new science at the Leiden cf. Ruestow 1973: 10-11, 140.

that it provided those professors who wanted to deviate from the established peripatetic tradition with a comprehensive system of nature, that could replace the older Aristotelian one. Descartes had, in fact, quite deliberately poured his philosophical views into such a systematic format in the *Principia Philosophiae* (1644), which was explicitly intended as a textbook with which to spread his views into the academic world.⁵³ In the *Principles* Descartes had based his natural philosophy on the underpinning of his metaphysical and epistemological views, which latter disciplines had been the first aspects of the Cartesian philosophy that became to be taught at Leiden.⁵⁴ Adriaan Heereboord (1614-61) had been amongst the first to teach Descartes' metaphysics at the university, but from the middle of the 1640s onwards his tuition would cause severe disputes amongst the professors.⁵⁵ In the face of these ongoing quarrels the curators were confronted with the difficult task of steering a middle course between the toleration of philosophical innovation, on the one hand, which benefitted the matriculation numbers; and, on the other hand, theological orthodoxy, in order to protect the university's reputation in the eyes of the Reformed clergy.⁵⁶

At the time of Swartenhengst matriculation at the university of Leiden on 1 May 1664, the balance of the curators had certainly been tilting towards philosophical innovation. Presently the philosopher David Stuart (1625-69) and the theologian Johannes Hoornbeek (1617-66) seem to have been the only two combative anti-Cartesians at the university, while there were various members amongst the philosophical and theological staff who were willing to shed a positive light on the Cartesian philosophy.⁵⁷ Amongst

⁵³ Cf. Ruestow 1973: 144-8. Descartes had firstly expressed his intention to write a textbook on the principles of philosophy in a letter to Mersenne from 11 November 1640 (cf. CSM, vol. 3: 156-7; AT, vol. 3: 230-1).

⁵⁴ For Descartes' description of the sequence in which the various philosophical branches should be treated, in order to deduce their first principles cf. 'Lettre de l'auteur a celui qui a traduit le livre' in *Les Principes de la philosophie* in AT, vol. 9.2: 1-20; Miller: xvii-xxviii.

⁵⁵ On Adriaan Heereboord's introduction of the Cartesian philosophy at Leiden and the quarrels that followed from his tuition during the late 1640s cf. McGahagan 1976: 231-43; Verbeek 1992: 34-51, 61-70.

⁵⁶ Cf. Cramer 1889: 61. The university of Leiden was administered by three curators, who coordinated the university affairs together with the city's four burgomasters. The Leiden burgomasters were obviously primarily concerned with the interests of the city; whereas the curators (who were frequently picked from amongst the ex-burgomasters of Holland's other voting towns) followed the directions from the States of Holland. In contrast to the burgomasters who were only in office for two years, the curators were nominated for life and hereby enjoyed the overhand in the decision-making process at the university (cf. Otterspeer 2000: 75-8; Otterspeer 2003: 603-4).

⁵⁷ For the *Series lectionum* in February and September 1664 cf. Molhuysen 1918, vol. 3: 187*-190*.

these professors who were positively inclined towards Cartesianism had been the Flemish philosopher Arnold Geulincx, with whom Swartenhengst had defended a practical disputation in the summer of 1666 as was mentioned earlier. At the time of Swartenhengst's matriculation Geulincx had been responsible for the public lectures on logic and from September 1665 he was also teaching ethics.⁵⁸ Apart from Geulincx, Swartenhengst will also have received classes from the orientalist and mathematician Jacobus Golius (1596-1667), as well as from Petrus van Schooten (1634-1679) who likewise taught in this latter field. Besides, it had been the eclectic Cartesian Johannes de Raey (1621-1702) who taught a course on physics, but the old-school Aristotelian David Stuart remained responsible for the tuition of metaphysics.⁵⁹

The influence of the Cartesian philosophy did, nevertheless, not exclusively restrict itself to the philosophical department during these years, but it was also reaching out into the other faculties. In September 1665 Florentius Schuyt (1619-69), - who had previously published the Latin edition of Descartes' *De homine* in 1662 - was appointed in the medical department.⁶⁰ More noteworthy even is the example of Abraham Heidanus (1597-1678), who as the first academic theologian introduced his students to a positive awareness of Cartesianism. Heidanus' career as a professor of theology in Leiden had commenced in 1648, but already in his preceding function as a minister at Leiden he had addressed the Cartesian philosophy, which was a fact that was even noticed by Descartes himself towards the end of his stay in the Dutch Republic:

⁵⁸ Cf. *Series lectionum* of 1664 and 1665 in Molhuysen 1918, vol. 3: 187*-193*. Although it is indicated on the *Series lectionum* that Geulincx was tutoring ethics from September 1665 onwards ('for which subject he had been born'), he firstly received official permission to teach ethics in February 1667 (cf. Molhuysen 1918, vol. 3: 210).

⁵⁹ On Johannes de Raey cf. Schuurman 2003: 813-16; on David Stuart cf. Ruler van 2003e: 956-8. From September 1666 onwards David Stuart's assignment (who had previously already been responsible for the subjects of logic and metaphysics together with Geulincx) was also extended with the permission to tutor on moral questions (cf. Molhuysen vol. 3: 192*, 202*; also cf. Aalderink 2009: 8-9; Ruler van 2003b: 324). At the time of Swartenhengst's arrival in 1664 the remaining professors at Leiden's philosophical faculty were J. F. Gronovius (1611-71) and G. Hornius (1620-70) who both taught history. Besides, Gronovius also organised private college for those students who wanted to improve their knowledge of the ancient Latin and Greek authors (cf. Molhuysen 1918, vol. 3: 188*).

⁶⁰ For Florentius Schuyt cf. Molhuysen 1918, vol. 3: 192*; Ruler van 2003d: 905-9.

“On m’a dit qu’il y a un Ministre à Leyde, qui est estimé le plus eloquent de ce país, et le plus honneste homme de sa profession que je connoisse, il se nomme Hay(danus), qui se sert souvent de ma Philosophie en chaise [...]”⁶¹

It had, in fact, also been Heidanus who helped Geulincx in obtaining permission to teach in private and preside over philosophical disputations at the university upon the latter’s arrival from Louvain in the spring of 1658. The Leiden curators at first instance had not displayed an overly welcoming attitude towards Geulincx, for they granted him permission to preside over philosophical disputations with the added comment, ‘that he should not have any hope on obtaining a professorship or any type of financial reward from the university’.⁶² One year later the curators thereupon withdrew their permission for Geulincx to preside over public disputations in November 1660. But after Adriaan Heereboord’s decease they seem to have changed their opinion on Geulincx, since the latter was appointed as lecturer in logic on 12 October 1662.⁶³ Geulincx’s appointment as lecturer was benefitted by a book on logic that he was currently writing, entitled *De logica suis fundamentis restituta* (1662). Another publication from Geulincx’s hand appeared in 1665, entitled *De virtute et primis eius proprietatibus, quae vulgo virtutes cardinales vocantur*, which led to Geulincx’s subsequent appointment as *professor extraordinarius* on 28 August 1665.⁶⁴ With the exception of another Dutch edition of Geulincx’s first ethical treatise (which appeared as *Van de Hooft-deuchden: De eerste Tucht-verhandeling* in 1667) the majority of his writings were still unpublished when he died from the plague in November 1669.⁶⁵

⁶¹ Cf. *Letter to Mersenne from 25 January 1647* in AT, vol. 4: 594. For Heidanus’ early embrace of the Cartesian philosophy cf. Cramer 1889: 13; Ruler van 2003c: 398.

⁶² “[E]nde dit al met deze uytdruckelicke verklaringe, dat men met het voors[genoemde] toestaen geensuitsen verstaet den suppliant eenigen vout off hoop te geven tot den titule van Professor, ofte tot eenich wedden, tractement off andere belooning tot laste van de voors[genoemde] Universiteyt” (cf. Molhuysen 1918 vol. 3: 154). For the relation between Heidanus and Geulincx upon the latter’s arrival from Louvain, and the letter of recommendation that was presented to him by the members of the theological faculty on 3 May 1658 cf. Cramer 1889: 78-9; Eekhof 1919: 1-24; Ruler van 2003b: 324; Ruler van 2006: xvi.

⁶³ For the curators’ withdrawal of their permission for Geulincx to preside over public disputations on philosophical matters cf. Molhuysen 1918, vol. 3: 165. After Geulincx’s appointment as lecturer in logic under David Stuart in October 1662, the curators would subsequently also allow him to teach on metaphysical matters from November of this same year onwards cf. Molhuysen 1918, vol. 3: 179.

⁶⁴ For Geulincx’s appointment as extraordinary professor in August 1665 cf. Molhuysen 1918, vol. 3: 200.

⁶⁵ For a biographical overview of Geulincx and the publications that were issued on his name both during his life and posthumously cf. Aalderink 2009: 7-10; Ruler van 2006: xliii-xlv; Ruler van 2003b: 322-31.

After Geulincx's death it had been one of Swartenhengst's friends at the university, Cornelis Bontekoe (1644-1685), who played an important part in helping the Geulincxian philosophy survive, by virtue of his edition of Geulincx's complete writings on ethics in 1675.⁶⁶ It would be during this same year when Swartenhengst and Bontekoe had been simultaneously dismissed from the university on 18 December 1675. In section 1.4.2 concerning Swartenhengst's dismissal the relation between these two Cartesian allies from Alkmaar will be further discussed, who during the previous years invested their mutual effort in helping the Geulincxian heritage live on at the university. Swartenhengst played a less prominent role in this regard, but his doctoral defence from 1670 and his subsequent tuition as a lector from 1672 onwards, will yet have reserved the memory of Geulincx's philosophy amongst his circle of students and those other colleagues who might have attended his disputations. In the next section the institutional requirements for Swartenhengst's doctoral inauguration and his nomination as lector will be briefly considered, in order to thereupon continue with a discussion of the nature of Swartenhengst's tuition at the university.

1.3 LECTORSHIP AND DISPUTATIONS

1.3.1 Swartenhengst's Degrees and Appointment as Lector

As was mentioned previously, it had been in November 1669 when Swartenhengst's teacher Arnold Geulincx succumbed to the Leiden plague, which cut a drastic hole into the university staffing when six of the professors were carried to the grave during this year. It was no more than half a year after Geulincx's decease, when Swartenhengst obtained his doctoral degree in philosophy on 22 April 1670 by virtue of an inaugural disputation, in which he summarily described the essentials of Geulincx's occasionalist

The more important works amongst Geulincx's posthumously edited writings were the *Physica vera* (1688); the *Annotata maiora in Principia philosophiae Renati des Cartes* (1691); and the *Metaphysica vera et ad mentem peripaticam* (1691).

⁶⁶ Ruler van 2003a: 129-30; Ruler van 2006: xliv.

metaphysics.⁶⁷ A closer discussion of the content of this disputation will be made in the third chapter, but for the moment I will only look at the institutional context at the time of Swartenhengst's defence and his subsequent appointment as lector at the university.

Almost six years had passed between the day of Swartenhengst's matriculation at the university on 1 May 1664 and his doctoral defence in April 1670. In order to qualify for the doctoral degree Swartenhengst was firstly subjected to a private exam, and upon the successful completion of this test he would have received permission to defend an inaugural disputation in public.⁶⁸ On account of Geulincx's earlier decease (on whose writings Swartenhengst's theses were primarily based), it may be assumed that Swartenhengst was personally responsible for the content of this disputation, which is confirmed by the fact that he called himself the 'auctor et respondens' in the dedication.⁶⁹ It is not so unlikely, however, that Abraham Heidanus will have lent his active support to Swartenhengst's defence, since the former had always been a generous friend and intellectual ally to Geulincx during the latter's lifetime. Heidanus was, in any case, the only member amongst the university staff to whom this disputation was dedicated, since Swartenhengst referred to him as his 'most venerated teacher'.⁷⁰ Apart from Heidanus, Swartenhengst also attributed this disputation to the town physician

⁶⁷ Swartenhengst's doctoral disputation was entitled *Disputatio philosophica inauguralis continens considerationes quasdam circa mentem eiusque functiones et corpus* (i.e. 'Inaugural Disputation Containing Certain Considerations concerning the Mind, its Functions, and the Body') (cf. 'Catalogus promotorum' in: Molhuysen 1918 vol. 3: 312*; or also the original proclamation in ASF 348). Geulincx's *Metaphysica vera* and *Metaphysica ad mentem peripaticam* (1691) were still unpublished at present, which means that Swartenhengst will have based this disputation on Geulincx's unedited writings or his personal notes from the lectures.

⁶⁸ Swartenhengst's period of study was slightly above average for a Dutch graduate student, which was probably related to the fact that earlier on he had still commenced his studies in the department of theology. For the statistics on the study time of Dutch graduates cf. Zoeteman-van Pelt 2011:75. For the traditional procedures that accompanied the doctoral defence cf. Molhuysen 1916: 11-18; Otterspeer 2000: 238-41; Schotel 1875: 333-4, 338-43.

⁶⁹ Cf. SWH 1670: dedication, l. 20.

⁷⁰ "*Admodum Reverendo, Spectatissimo ac Celeberrimo VIRO, D[omino] ABRAHAMO HEIDANO, S[acro]-S[anctae] Theol[ogiae] Doct[ori] eiusdemque Facultatis in Acad[emia] Lugd[uni] Bat[avorum] Professori Primario, ibidemque Pastori disertissimo, vigilantissimo, Praeceptorum plurimum honorando*" (SWH 1670: dedication, ll. 3-9). In English this quote can be translated as follows: "[Johannes Swartenhengst, the author and *respondens*, has dedicated and recommended this inaugural disputation] to the entirely honourable, most esteemed, and celebrated gentleman, Master Abraham Heidanus, Doctor in the most holy Theology and *professor primarius* in this same faculty at the university of Leiden, most fluent and watchful preacher at this same place, my most honourable protector" (cf. Appendix: Translations, 153).

Hubertus Verveer, which might indicate that he had presently also been receiving medical instructions from the latter.⁷¹

Apart from possibly taking an apprenticeship with Hubertus Verveer, Swartenhengst will at least have attended various courses in the medical department, in which he also obtained a Licentiate at an unknown date prior to his nomination as lector in February 1672. Because there was no fixed temporal order for the degrees, Swartenhengst might have obtained this Licentiate in Medicine either before or after his Doctorate in Philosophy. The first reference to this medical degree occurs in the earliest (preserved) disputation that he presided over from 11 May 1672, in which the *defendens* referred to Swartenhengst as: “Sacro-Sancti Ministerii Candidati Licentiati Artis Medicinae ac Philosophiae Doctoris.”⁷² As this quote indicates, Swartenhengst was presently also still holding on to his Candidacy in Theology, which dated back to his earliest years as a Theology student at Leiden when he became a proponent (or candidate) in the Dutch Reformed Church.⁷³ Since students could only graduate as a Doctor from the age of twenty-five onwards, it is quite likely that Swartenhengst’s theological studies were thereupon continued in the medical department, while he eventually finished his student years with the Doctorate in philosophy in 1670.⁷⁴

Swartenhengst’s intellectual interests, thus, clearly surpassed the domain of philosophy, but the fact that he obtained two additional degrees in the principal faculties might also be an indication that he was consciously planning on an academic career. At the moment it had only been a minority of 15% of the Dutch students who completed their

⁷¹ “UT ET, *Spectatissimo, Doctissimoque Viro*, D[omino] HUBERTO VERVEER, *Medicinae Doctori, et inter Leydenses Practico Prudentissimo, Amico integerrimo*” (SWH 1670: dedication, ll. 11-15). In English this quote can be translated as follows: “And besides, to the most esteemed and experienced, Master Hubertus Verveer, Doctor of Medicine with a most skilful practice in Leiden, my intimate friend” (cf. Appendix: Translations, 153). It was not uncommon for the medical students at Leiden to become an apprentice with one of the town physicians, even though clinical demonstrations were also provided at the university hospital from 1637 onwards (Wansink 1981: 36).

⁷² Cf. SWH NL1: title page, ll.11-13. In English this quote can be translated as follows: “[...] and under the supervision of the most prominent and learned gentleman, Master Johannes Swartenhengst, **Candidate for the most holy Ministry, Licentiate of Medicine, and also Doctor of Philosophy [...]**” (cf. Appendix: Translations, 164).

⁷³ Cf. Leiden, *Nederlands Hervormde Kerkenraad* (1666-1681), Arch. Nr. 511B, Inv. Nr. 6 (20 May 1667).

⁷⁴ On the professional value, costs, and requirements for the academic degrees cf. Frijhoff 1996: 363-5; Molhuysen 1916: 9, 20-21, 23, 29-30; Otterspeer 2000: 241-2; Schotel 1875: 334-5.

studies with any degree at all, since the mere attendance at a university together with a student's birth and reputation were frequently considered sufficient criteria for a job assignment. For an eventual career in the academic world a degree was, nevertheless, generally required, which is confirmed by the example of various predecessors in the philosophical department at Leiden, who likewise obtained plural degrees or were awarded a doctorate *honoris causa* prior to their appointment as lecturer or professor.⁷⁵ In Swartenhengst's case his multiple degrees would soon demonstrate their effect, since the curators officially nominated him to the position of lector at the start of the academic year in February 1672, which office mainly consisted in the task of presiding over public disputations in philosophy in Swartenhengst's particular case.⁷⁶

As a young and promising scholar Swartenhengst had, thus, been offered the opportunity to demonstrate his teaching capacities as a lector at the university, which occupation might have earned him an eventual professorship. As G.D.J. Schotel (1875: 259-60) nevertheless indicated, only some of the lectors were later assigned to a teaching position at Leiden or elsewhere, while others would simply disappear from the university's payrolls after some years.⁷⁷ Swartenhengst also belonged to this latter category of lectors who soon again disappeared, but the story of his dismissal and the disputations that he left behind still provide us with an interesting part of the puzzle in the overarching Cartesian battle at Leiden. Before proceeding to the occasion of his dismissal in section 1.4, I will now firstly discuss the textual genre of the academic disputation and the institutional setting in which these were produced by Swartenhengst and his students.

⁷⁵ Johannes de Raey and Arnold Geulinx, for example, also both acquired an additional degree in medicine before they had adopted their teaching positions at the university (cf. Ruler van 2003b: 324; Schuurman 2003: 813). Besides, Adriaan Heereboord and Franco Burgersdijk were awarded a doctorate *honoris causa* prior to their nomination as professor in Philosophy (Wansink 1981: 29). For the percentage of graduating students at Leiden cf. Wansink 1981: 30.

⁷⁶ "C[uratoren] en B[urgemeesters] geven D[omino] Johannes Swartenhengst, Philosophiae Doctor, vergunning om over disputaties in de Philos[ophische] faculteit te presideeren" (cf. Molhuysen 1918, vol. 3: 259). In English this quote can be translated as follows: "The curators and burgomasters give Johannes Swartenhengst, Doctor in philosophy, permission to preside over disputations in the philosophical faculty." On 7 March 1672 the academic Senate additionally confirmed that Swartenhengst had been provisionally allowed to preside over philosophical disputations in public (cf. Molhuysen 1918, vol. 3: 252).

⁷⁷ On the function of lector and Swartenhengst's appointment to this position cf. Otterspeer 2003: 605-6; Schotel 1875: 259-60; also cf. 'Nomina lectorum qui in Academia Lugduno Batava docuerunt' in Leiden's *Album studiosorum* (cf. Rieu du 1875).

1.3.2 Disputations and Collegia

Thus, the curators had officially provided Swartenhengst with their permission to preside over philosophical disputations, which role is more specifically identified by the title of *praeses*. In the academic tradition there were two types of disputations: Firstly, the inaugural disputation (i.e. *disputatio pro gradu*), such as the one with which Swartenhengst had obtained his doctoral degree; and secondly, the disputations for the purpose of exercise (i.e. *disputationes exercitii causa*). The fourteen disputations that have been preserved from Swartenhengst's period as lector all belonged to this latter category, which means that they were defended as purely rhetorical and educational exercises by several of his students.⁷⁸ In accordance with the regulations that had been stipulated by the curators, these disputations contained no more than twelve pages, in which a particular topic was summarily described throughout a number of theses that were supplemented with some corollaries at the end. Apart from the *defendens* (or *respondens*) there were also various opponents assigned for the defence of such disputations, which were published *ad valvas* one week before the defence in order to attract an audience. It leaves little surprise that the disputations that touched upon the more controversial topics drew the largest assemblage, and since the Cartesian philosophy was still a highly debatable topic during these days, Swartenhengst's disputations will presumably have been well-attended.⁷⁹

As a general rule it had been established that Wednesdays and Saturdays were officially destined for the defence of such disputations, since no public lectures were scheduled on these days. Apart from the disputations, the lectors and professors were also allowed to tutor in private on Wednesdays and Saturdays, which mostly happened by virtue of the so-called *collegia*, in which a select group of students gathered under the supervision of a lecturer in order to discuss a certain book or topic. Seeing that these private colleges

⁷⁸ The *disputationes exercitii causa* can be further subdivided in the following three types: Firstly, the miscellaneous disputations (*theses miscellaneae*) in which all the philosophical disciplines were addressed in direct preparation of the degree. Secondly, there were disputations that commented upon the work of a certain author (i.e. *theses complectentes*). And lastly, there were the disputations that discussed a specific theme, to which category nearly all of Swartenhengst's disputations belonged with the exception of two miscellaneous disputations by Simon Hoet and Guilielmus Koninck (cf. SWH PP1674; id. PP1675; also cf. Dibon 1954: 48-9).

⁷⁹ Cf. Ahsmann 2000: 180-92; Dibon 1954: 33-42; Otterspeer 2000: 236-8; Schotel 1875: 328-30; Wansink 1981: 21-4; Wiesenfeldt 2002: 104-5.

provided the professors with an additional salary on top of their honorarium from the university, this second type of education became ever more popular and gradually started to replace the public lectures during the second half of the seventeenth century.⁸⁰ As was the case with the disputations, likewise there existed various kinds of collegia, of which the three main types were the *collegia explicatoria*, *examinatoria*, and *disputationum*. On average these collegia were attended by no more than twelve to sixteen students, who were at a comparable level of study and also had similar intellectual interests. I personally assume that most of the disputations that were defended under Swartenhengst's supervision belonged to such a *collegium disputationum*, because they display a coherent content, they also explicitly refer to one another, and they were defended by a fixed group of students.⁸¹

Unlike the public lectures, the topics that were treated at these private colleges (which were mostly held at home) were not subjected to the control of the curators and the senate, which allowed for a greater degree of freedom on the part of lecturers. Hence, these private colleges were ideal for introducing new subjects to the students that did not appear in the traditional curriculum, such as the Geulincxian philosophy and the study of natural law in Swartenhengst's case. As was already indicated, the educational value of these collegia became ever more important during the course of the seventeenth century and, therefore, their occurrence was also extended to the official lecturing days. Still, no *privata* were allowed to be organised if they conflicted with a public lecture in the same faculty on that same day. But due to the occasional rivalry amongst the teaching staff and the interdisciplinary curiosity of the students this measure was of little avail in preventing arguments between the professors. While some complained of the lack of students that had run off to the private colleges or disputations, others simply neglected their own public lectures on account of the financial advantage that could be

⁸⁰ Cf. Ahsmann 2000: 241-4; Otterspeer 2000: 228, 231-3, 238; Schotel 1875: 328-9; Wansink 1981: 17-21; Wiesenfeldt 2002: 100-3; Woltjer 1965: 47.

⁸¹ As the names themselves indicate, the *collegia examinatoria* served to prepare the students for their exam, while the *collegia explicatoria* provided the students with a more detailed treatment of the course material. As W. Otterspeer (2000: 238) indicates, the *collegia disputationum* were the most intense of all three types. At these colleges a certain book or theme was summarised in a number of theses, which were defended by various students and thereupon published. This latter description seems to correspond quite closely to the image that is created by Swartenhengst's disputations, although there were numerous variations amongst the collegia since these were not subjected to any strict regulations (cf. Ahsmann 2000: 193, 244-52; Wansink 1981: 18; Wiesenfeldt 2002: 102-3).

gained from the private tuition. Although the curators implemented repeated measures in order to safeguard the attendance of the *publica*, these had been almost entirely replaced by the *collegia* by the end of the century.⁸²

As was indicated previously, the disputations that Swartenhengst supervised during his career as lector will probably have belonged to such a *collegium disputationum* that was organised under his own supervision. Although the curators had never provided him with their explicit permission to tutor in private, such a *collegium* will certainly have had its use for familiarising his students with the subject material that they thereupon addressed in the disputations.⁸³ As appears from the events surrounding the death of one of his students in September 1672, Swartenhengst had certainly been teaching in private by then. This said student, Cornelis Mina, fell victim during the war against France, at which point he still had to repay various outstanding tuition fees with his tutor in philosophy, Johannes Swartenhengst.⁸⁴ Mina's debts will necessarily have related to Swartenhengst's private tuition, since the disputations that he presided over were paid for by the university itself (as is shown on the *Rationes academicae*).⁸⁵ Besides, the fact that Swartenhengst had been teaching in private is also confirmed by the decree of his dismissal, in which the curators forbade him to still continue the organisation of any such private colleges in philosophy or another science either at his house or elsewhere:

“[...] that the said Swartenhengst should refrain and abjure from presiding over any public disputations and exercises. And moreover, that he is not entitled to organise any

⁸² Cf. Ahsmann 2000: 239-44; Otterspeer 2000: 231-3, 238; Vandermeersch 1996: 212, 217, 237-8; Wansink 1981: 18-20; Wiesenfeldt 2002: 102-3.

⁸³ In theory anyone who wanted to tutor in private at Leiden would have needed the official approval from the curators and the senate. Possibly Swartenhengst had *already* been tutoring in private at the time when he obtained their permission to preside over public disputations, or otherwise this task might have been implicitly include in their latter authorisation to preside over public disputations (cf. Ahsmann 2000: 241-3; Otterspeer 2000: 231, 237; Wansink 1981: 18-20).

⁸⁴ On Mina's decease during the war and his outstanding debts cf. Deijk van 1992: 101-6.

⁸⁵ The payment for the disputations was one Guilder per disputation from the university, whereas the costs for the attendance of a private college were fifteen to thirty Guilders per student on average (cf. Otterspeer 2000: 237; Schotel 1875: 328; Wansink 1981: 23; Wiesenfeldt 2002: 103). Swartenhengst's payment from the university was recorded on the *Rationes academicae*: At the end of the academic year in 1672 he received five Guilders and five disputations are preserved from this year; for the year 1673 he received nine Guilders and three disputations are preserved from this year; for the year 1674 he received three Guilders and four disputations are preserved from this year; and finally, for the year 1675 he received three Guilders and two disputations are preserved from this year (cf. University of Leiden, ASF 296, *Rationes academicae*). Thus, at least from the year 1673 some disputations went missing.

private colleges, in whichever part of philosophy or any other science, either at his house or outside.”⁸⁶

It is unlikely that Swartenhengst would still have unofficially continued his private tuition after his dismissal, because all of the preserved disputations date back to his earlier period as lector. In terms of the content of these fourteen disputations they basically touch upon the four primary philosophical disciplines: metaphysics, logic (or by then epistemology), ethics, and physics. Swartenhengst started his career with a tripartite series of ethical-political disputations *On Natural Law*, but before this sequence had been properly ended another sequence of disputations *On Knowledge and Error* was already commenced by another student. This series of disputations *De scientia et errore* was once more intersected by a third series of five disputations *On the World* (the fourth one of which was not preserved).⁸⁷ I am quite convinced that these various sequences yet originate from a single disputing college, due to the many overlaps in their content and also because they were defended by a steady group of students. Apart from these sequential disputations, Swartenhengst in the meantime also presided over four individual ones that were, nevertheless, once again defended by these same students.⁸⁸

Apart from Cornelis Mina, the other students of whom it is known that they studied with Swartenhengst (on account of the preserved disputations) were Simon Hoet, Antonius Opperdoes, Adrianus Moll, Isaac Hellenius, Bernardus Nieuwentijt, Guilielmus Koninck, and Johannes de Cock à Delwynen. Simon Hoet and Antonius Opperdoes even seem to have continued their tuition with Swartenhengst for various years, while Adrianus Moll and Guiliemus Koninck also defended more than one disputation with

⁸⁶ The original quotation in Dutch reads as follows: “[...] dat mitsdien den voorn[oemde] Swartenhengst van nu voortaan sijn van ‘t voors[genoemde] presideren ende van alle publycque disputatien ende exercitien sal onthouden ende abstinieren; dat hy daerenboven niet sal vermogen eenige privata collegia in quacunq[ue] parte Philosophiae ofte in eenige andere wetenschappen te houden ofte eenige private institutien ‘t sy in sijn huys ‘t sy daer buyten te doen” (cf. Molhuysen 1918, vol. 3: 314). Several years later Swartenhengst had once more asked the curators whether he would again be allowed to tutor in private in August 1679, but they then postponed their decision and nothing more is heard of the matter (cf. Molhuysen 1918, vol. 3: 349).

⁸⁷ For Swartenhengst’s series of disputations *On Natural Law* cf. Swartenhengst 1672a, 1672b, 1673c; for the sequence of disputations *On Knowledge and Error* cf. idem 1672d, 1673a, 1674b; for the series *On the World* cf. idem 1673b, 1674a, 1674c, 1675a.

⁸⁸ For these individual disputations cf. Swartenhengst 1672c, 1672e, 1674d, 1675b.

him. What is odd is that these series of disputations were defended over such an extensive period of more than a year (while normally one would have expected them to succeed each other on relatively short and regular intervals).⁸⁹ My personal guess would be that these sequences all intersect with one another, because Swartenhengst was teaching on the complete gamut of the Cartesian and Geulincxian philosophy at one and the same time. Most of his students certainly seem to have been fascinated with both the Cartesian *and* the Geulincxian philosophy, which appear in nearly all of the disputations and corollaries. While the Cartesian philosophy was still addressed in the public lectures of Christiaan Melder (-1681), Burchard de Volder (1643-1709), and Theodoor Craanen (1620-89) at this time, Geulincx's heritage will soon have disappeared from the curriculum after his decease. For this reason Swartenhengst's private colleges will have been of a particular interest to those students who still wished to study and discuss his writings.⁹⁰

In terms of the authorship of these disputations, surely the four individual disputations that did not belong to a series will have been written by the students themselves, who signed these disputations as 'auctor et respondens'. In the disputations that belonged to a sequence his students only called themselves the 'respondens' or 'defendens'. But the different styles of writing that appear in them, nevertheless, still indicate that the students were also personally involved in the writing process of these disputations. In the secondary literature there has been much discussion on the authorship of the

⁸⁹ For the timespan of a disputing college cf. Ahsmann 2000: 240, 246. For the names of the defending students in Swartenhengst's disputations cf. Bibliography. According to Bruinvis (1856: 214) and Aa van der (1874b: 346), Swartenhengst was teaching the pupils of his friend Burchard de Volder (1643-1709). I found no information with which to confirm this claim, although De Volder and Swartenhengst might well have been friends, since they briefly studied together at Utrecht and Leiden during the 1660s. Furthermore, De Volder was nominated as professor in philosophy in succession to Geulincx in 1670, whence he had certainly included the Cartesian philosophy in his tuition on metaphysics and natural philosophy (cf. Otterspeer 2002: 55-6; Wiesenfeldt 2003: 1041-3). A remarkable inconsistency is, nevertheless, composed by the fact that none of Swartenhengst's students dedicated any of their disputations to De Volder, while they did refer to Johannes Coccius, Wolferd Senguerd, Fredericus Spanheim, and Antonius Hulsius (cf. Swartenhengst 1672e; 1673a; 1673b; 1673c; 1674a).

⁹⁰ For the *Series lectionum* of the academic years 1670 and 1671 cf. Molhuysen 1918, vol. 3: 232*-237*. Simon Hoet certainly composes one such an example of a student who wished to continue the Geulincxian heritage at the university: Hoet had still defended four disputations with the master himself in 1668 and 1669, and Geulincx's influence is also strongly represented in the disputations that he thereupon defended with Swartenhengst (cf. 'Series eorum quae hoc volumine continentur' in *Arnoldi Geulincx annotata maiora in Principia Philosophiae Renati Descartes: Accedunt opuscula philosophica eiusdem auctoris* (1691)). An additional detail in relation to Swartenhengst's student circle is that Hoet was one of the four students who composed a funeral poem at the time of Cornelis Mina's decease (cf. Deijk van 1992: 107 n.22).

academic disputations, and whereas earlier on the authorship was generally ascribed to the *praeses*, this opinion seems to have turned around in recent years.⁹¹ Swartenhengst's disputations, to my opinion, confirm this more recent view that the *praeses* himself was not the author, although undeniably he will have had a strong hand in the orchestration of their content. As is mentioned by S. van der Woude (1963: 6), the *respondens* firstly had to obtain the approval of the *praeses* before he was allowed to bring his disputation to the printer, which certainly indicates a prevailing responsibility on the part of these supervisors. In Swartenhengst's specific case it is even more likely that he will be actively involved in the composition of their content, since the topics of natural law or the Geulincxian philosophy were not (at the time) addressed in the public curriculum, which means that his students will have had to depend upon his personal instruction.

In short, although Swartenhengst was not the only author of these disputations, he can certainly be held accountable for the foregoing instruction that was involved, as well as for the implementation of a common theme that seems to resurface through all of these sequences.⁹² I, thus, consider these disputations as representative of the tuition that he provided in his private colleges. In the next section concerning Swartenhengst's dismissal together with Cornelis Bontekoe the concrete procedure at the defence of such disputations will be further discussed, which often happened in an unruly fashion, as was also the case with Swartenhengst's disputations. Apart from the style of his tuition, however, the change of atmosphere after the war from 1672 will also have affected the premature ending of his career, as will be explained in more detail in what follows.

⁹¹ In continuation of E. Horn (1893) and L.D. Petit (1894), P. Dibon once more demonstrated for the university of Leiden that the *praeses* was most often himself the author of these disputations (cf. Dibon 1954: 39, 43; Wansink 1981: 23). In the recent literature this opinion has been challenged by M. Ahsmann, whose view that the students frequently wrote these disputations themselves – now – finds common support (cf. Ahsmann 2000: 222-237, 246-80; Otterspeer 2000: 236; Wiesenfeldt 2002: 105).

⁹² The fact that the *praeses* frequently played an important role in the preparation of the defence is confirmed by both Ahsmann as well as various other authors (cf. Ahsmann 2000: 189-90; Eekhof 1921: 32; Wansink 1981: 23; Wiesenfeldt 2002: 104-5).

1.4 SWARTENHENGST'S DISMISSAL

1.4.1 *The War of 1672-1673*

While Swartenhengst's student days at Leiden had already coincided with the Second Anglo-Dutch War (that ended with the Dutch victory at Chatham in July 1667), the subsequent war from 1672 will certainly have exerted a larger impact on his daily routine, as well as on the Dutch political and economic scene in general. Whereas the French King, Louis XIV, had still intervened on the Dutch side during the previous war against England, he abandoned his diplomatic caution towards the Dutch after they had beaten the English on sea. When France thereupon boldly invaded the Spanish Netherlands in 1667, this certainly also raised some concerns in regard of Louis' future aspirations in the Dutch Republic. At the moment the French advances in the south could still be temporarily halted by virtue of the Triple Alliance of 1668, by which the Republic managed to align its cause with England and Sweden. The English had, nevertheless, soon broken ranks with the Dutch when they signed a secret treaty with France in Dover in 1670, although this deceit remained entirely unnoticed until shortly before the outbreak of the war. For this reason the Dutch politicians were still mostly concerned with the economic retaliations that ought to be taken against France, by the time when Louis XIV was making final preparations for an attack against their nation by concluding alliances with Cologne and Münster.⁹³

At the time when the Dutch politicians came to realise the extreme danger of the situation, their diplomacy stood useless in the face of the united forces of France, England, Cologne, and Münster. And thus, the battle effectively commenced in May 1672, when the French invaded the Republic from the south, Cologne and Münster declared war from the east, and the English were ready to attack on the seafront. An important question that had already raised itself between the republicans and orangists during the past decade - but that now became exceedingly stringent - concerned the level of influence that ought to be attributed to the Prince of Orange on the Dutch

⁹³ Cf. Israel 1995: 766-85; Panhuysen 2005: 341-83.

political scene. During the previous years the republican regime under Johan de Witt had at all costs tried to prevent an eventual nomination of William III, who would soon reach his majority, as Stadholder. Instead the Prince was promised a seat in the *Raad van State* and a possible appointment as captain-general (on the premise that he would never combine this office with the Stadholderate). William effectively obtained his seat in the *Raad van State* in May 1670, and while his popularity was rapidly increasing under the growing threat from France, he was also nominated as captain-general within months before the outbreak of the war on 24 February 1672.⁹⁴

After their glorious triumph against England in 1667, De Witt's position within the States of Holland was again slowly weakening. And now that the Republic was suffering one defeat after another the public attitude towards the regents was, in fact, turning hostile. Over the summer of 1672 many regents in the Dutch towns were openly harassed on the streets, while the demands for the nomination of William III as Stadholder became increasingly insistent. When the military prospects of the Dutch Republic were at an all-time low and chaos had been pervading amongst the Dutch population, the republican regents in the States of Holland were no longer capable of averting William's nomination as Stadholder in July 1672. In the next month De Witt resigned from his position as Grand Pensionary, but the public fury against the defeatism of the regent class had reached such intense levels, that he was thereupon killed in a mob attack together with his brother Cornelis on 20 August 1672. In spite of this major political transformation the future was still looking exceedingly gloomy for the Republic at the moment, while large parts of the inland provinces were in the hands of either the French or Munsterite forces. Over the next few months the province of Holland, nevertheless, surprisingly managed to keep the French army out of her territory by flooding the water-line, while a full scale invasion over sea was meanwhile prevented by Michiel De Ruyter's (1607-76) skilful command over the Dutch fleet.⁹⁵

Although 1672 deservedly went down into Dutch history as 'the year of disaster', the permanent consequences of the war were not as pervasive and unsettling as might have been expected in the beginning (when the leading regent body had still been willing to

⁹⁴ Cf. Israel 1995: 785-97; Panhuysen 2005: 346-49, 386-410.

⁹⁵ Cf. Israel 1995: 796-813; Panhuysen 2005: 410-62.

sign off the entire Generality area to France). During the winter of 1672 the Republic's defensive power had for the first time been strengthened on account of the support they received from the Holy Roman Emperor, the Electorate of Brandenburg, and Spain, which compelled France to divert part of its army away from the Republic. Meanwhile De Ruyter again succeeded at successfully warding off the enemy on sea during the summer of 1673, which resulted in the English withdrawal from the war in February 1674. Two months later Münster followed suit, and Cologne signed a peace treaty with the Dutch Republic on 11 May 1674. Seeing himself left as the only remaining enemy, Louis XIV thereupon retreated his forces from the IJssel line and the provinces of Gelderland and Overijssel in May 1674, but he would not relinquish his cause until the signing of the Peace of Nijmegen in August 1678. Although the Republic on this account still had to sustain an extensive standing army during the following years, their alliances henceforth protected them from such a dramatic invasion to ever reoccur.⁹⁶

1.4.2 Swartenhengst's Dismissal together with Cornelis Bontekoe

Even if the province of Holland had averted a French invasion by the use of her water-line, the continuous threat of the French forces (who were stationed only miles away) certainly exerted a huge impact on the daily life of the local population in the years 1672-1673. While the educational routine at the university had still been severely interrupted at the onset of the war, the curators decided to once again resume the academic tuition in an ordinary fashion from September 1672 onwards.⁹⁷ It would only be a few days later when the fatal incident with Swartenhengst's pupil Cornelis Mina occurred, who had joined the citizen army under the command of Carel Heidanus and was killed in a battle near Woerden. Mina had been braver than most of his fellow students who only joined the student militia, which performed an important task in building fortifications and patrolling the city but never engaged in any armed encounters. Such an encounter was, nevertheless, close at hand when the frost permitted

⁹⁶ Cf. Israel 1995: 812-25; Panhuysen 2009: 209-49, 307-24, 342-61, 381-429.

⁹⁷ "De Rector ende Senaat van de Universiteyt binnen Leyden maken mits desen bekend, dat sy, niet tegenstaande dese bekommerlikke tijden, sullen alle soo publique als private lessen, disputationen, ende andere exercitien op den gewoonliken tijt in d'aanstaande maandt van September hervatten" (Molhuysen 1918, vol. 3: 256).

the French to cross the water-line in the winter of 1672, but the early thaw yet prevented their soldiery from marching on to Leiden or The Hague. As the dates of Swartenhengst's disputations indicate, he remained present at the university for most of the year, which means that possibly he also joined the student militia that was commanded by the philosophers Christiaan Melder and Carolus Desmatius.⁹⁸

At the time when Swartenhengst had been nominated as lector at the university shortly before the outbreak of the war, Cartesian philosophy was still openly taught at the university by this said Christiaan Melder, as well as by Burchard de Volder and Theodoor Craanen.⁹⁹ Their classes, nevertheless, also attracted large numbers of students from the other faculties, which in the case of the theology students obviously composed a thorny issue for the Dutch Reformed Church. Although the Reformed synods and classes had still instigated the States of Holland to issue a resolution against the tuition of Cartesianism in 1656, their requests and complaints had temporarily calmed down during the remainder of the Stadholderless era.¹⁰⁰ After the political transformation of 1672, however, the pressure of the orthodox wing in the Dutch Reformed Church was once again more strongly felt at the university, for the stricter Calvinists now saw their interests more strongly protected by the newly appointed Stadholder. Even though William III was by no means a religious fanatic, he did comply with the demands of the Voetian bloc in as far as the university of Leiden was

⁹⁸ Most students had in fact fled from Leiden during these troubled times, and it were only those who joined the student militia that had stayed at the university, as is confirmed by the following quote from the Senate "Oock ist wonder dat sulcken resolutie genomen is in 't jaer 1672, doe landt, stadt, academie en alles in de grootste confusie des werelts was, de studenten een ider nae sijn ouders als de uysterse ruine verwachtende vertrocken, behalven eenige weynige, die met communicatie ten dienste van 't landt aen dese stadts-poort bleven waecken" (Molhuysen 1918, vol. 3: 244*) For Cornelis Mina's decease and the role of the student militia at Leiden cf. Deijk van 1992: 99-107; Poelgeest van 1990: 108-9. For the close escape of Leiden and The Hague after the French crossing during the winter of 1672-73 cf. Israel 1995: 812; Panhuysen 2009: 266-80.

⁹⁹ For the philosophy courses on the *Series lectionum* of 1671 cf. Molhuysen 1918, vol. 3: 234*-37*. For the latest appointments of various pro-Cartesian members of staff prior to the outbreak of the war in April 1672 cf. Cramer 1889: 100; McGahagan 1976: 321; Poelgeest van 1990: 110-11.

¹⁰⁰ For the *Ordre jegens de vermenginge van de Theologie met de Philosophie ende het misbruyck van de vryheyt int filosofieren tot naedeel van de Schrifture* from 30 September 1656 cf. Molhuysen 1918, vol. 3: 55*-58*; also cf. Cramer 1889: 66-75. In 1660 the Leiden consistory had once more made an attempt to discourage theology students to attend the lectures on Cartesianism, by making them swear never to continue on any of the harmful philosophical novelties if they wished to obtain the required testimonies and attestations. At this point the States of Holland, nevertheless, took the side of the university, since they soon ordered the Leiden consistory to abandon this new procedure (cf. Cramer 1889: 82-89).

concerned, where he ascertained the nomination of several orthodox theologians and philosophers over the following years.¹⁰¹

Whereas in 1670 the university of Leiden still offered a chair in theology to both Ludovicus Wolzogen and Franciscus Burman (which was accepted by the equally conspicuous Christophorus Wittichius in 1671), only conservative theologians were still approached by the university from the war of 1672 onwards.¹⁰² After William's political take-over the first theologian who was sought after by the curators had been the Frenchman Stephanus Le Moyne (1624-89), who hesitated for some years on account of the Republic's dire political situation, but also because of the rumours that had reached him concerning the university's reputation.¹⁰³ On William's recommendation the curators thereupon also applied to the Groningen theologian Samuel Maresius (1599-1673), who had adopted an ambivalent stance in the conflicts on Cartesianism during the previous decades, but then started to support the orthodox camp after the appearance of Lodewijk Meyer's *Philosophia Sacrae Scripturae interpres* (1666). Unfortunately, Maresius died before he could fill in the vacancy, and since the curators thereupon refused William's suggestion of Gerardus van der Meulen, it was in the end still Le Moyne who accepted the professorship in January 1676. Apart from the Republic's improved strategic prospects, however, the changes that recently occurred at the university will also have helped to convince Le Moyne.¹⁰⁴

¹⁰¹ For a discussion on the change of atmosphere at the Dutch universities after the political transformation of 1672 cf. Bijl van der: 78-84; Cramer 1889: 100-1, 120-1; Israel 1995: 804-9, 819-20, 889-99; McGahagan 1976: 17-19, 321-4, 331-4; Poelgeest van 1990: 110-15.

¹⁰² For the curators' address to Ludovicus Wolzogen (1633-90), Franciscus Burman, and their eventual nomination of Christophorus Wittichius (1625-87) cf. Molhuysen 1918, vol. 3: 244, 249, 252. It is important to note, however, that the curators had also still frequently appointed conservative theologians before the war, such as Antonius Hulsius (1615-85) who was nominated as regent of the State College in 1668, and Fredericus Spanheim junior (1632-1701) who was appointed as professor in theology in 1670 (cf. Molhuysen 1918, vol. 3: 214, 216, 219, 235, 238, 243). After 1672 the curators were no longer allowed to continue this eclectic nomination policy and their focus became notably conservative under the influence of the Stadholder (cf. Otterspeer 2002: 51, 56-8; Poelgeest van 1990: 110-15).

¹⁰³ While Le Moyne had initially referred to the Republic's 'sad condition' in order to explain for his delayed arrival, later resolutions also indicate that his hesitations were caused by the rumours that had reached him concerning the scorn with which orthodox theologians were faced at the university (cf. Molhuysen 1918, vol. 3: 260-1, 272-3, 287, 297, 308, 311-12; also cf. Cramer 1889: 99; Eekhof 1921: 58*). Although the curators had discarded these rumours as plain falsities, Le Moyne's concerns were probably more accurate than they were willing to admit if one looks at the circumstances of Gerardus de Vries' departure from the university in 1674 (cf. Molhuysen 1918, vol. 3: 288, 290-2).

¹⁰⁴ For the appointment of Samuel Maresius and the curators' rejection of Gerardus van der Meulen cf. Molhuysen 1918, vol. 3: 241*-242*, 272, 294; also cf. Eekhof 1921: 58*-59*; McGahagan 1976: 327-8, 333; Poelgeest van 1990: 112; Wiesenfeldt 2002: 51-2. On 19 January 1676 the curators also effectively

It leaves little to say that William's enhanced influence at the university since 1672 had also induced various changes in the philosophical faculty, where Theodoor Craanen was the first who had been reprimanded over a dispute with the theologian Fredericus Spanheim in the summer of 1673. Against Spanheim's objections, Craanen still allowed one of his students to ridicule a proposition that had previously been defended under Spanheim, whose views were described as *machinationes inhumanas contra veritatem* (i.e. 'barbarous inventions against the truth'). Such and similar expressions made it hardly surprising that the curators took Spanheim's complaints seriously, who was currently functioning as rector, whereas Craanen had already been ignoring some of their previous warnings. In the current situation Craanen was accused of transgressing the limitations in the resolution from 1656, which in December 1673 resulted in his transfer to the medical department and his dismissal as subregent of the State College.¹⁰⁵ The Aristotelian philosopher Gerardus de Vries (1648-1705) was thereupon nominated as the new subregent, but the latter was suffering from so many insults that he gladly accepted the offer for a professorship at Utrecht. Although the curators still tried to convince him of the opposite, De Vries had been adamant in his decision to leave, since he hoped that his tuition would bear more fruit in Utrecht. This latter comment will not have been taken lightly by the curators, for it clearly established Utrecht as their superior competitor within orthodox circles.¹⁰⁶

De Vries' departure had, thus, been a wake-up call for the curators, who henceforth steered a straight course in their nomination and promotion of several conservative members of staff: In July 1674 Wilhelm Wilhelmius (1631-1677) would replace De Vries as subregent, who was promoted to a full professorship in philosophy together

sent a letter to Le Moynes, in which they informed him on the new state of events at the university (cf. Molhuysen 1918, vol. 3: 259*-60*; Cramer 1889: 104; McGahagan 1976: 343).

¹⁰⁵ In this disputation from July 1673 Craanen's student had defended Cartesianism against the following proposition that was previously defended under Spanheim in June 1673: "*Dubitare quocunque modo de Dei existentia nec pium nec honestum esse*"; i.e. 'doubting concerning God's existence in whichever way is neither pious nor respectable' (cf. Molhuysen 1918 vol. 3: 274-279). On the details of this conflict between Craanen and Spanheim also cf. Cramer 1889: 93-5; McGahagan 1976: 334-5; Otterspeer 2002: 52-3; Wiesenfeldt 2002: 52-3. Although the curators had genuinely intended to punish Craanen who would also lose 600 Guilders of his annual income, their measure also contained an ambiguity in the sense that Cartesianism was now introduced into the medical studies (Wiesenfeldt 2002: 53).

¹⁰⁶ For De Vries' departure to Utrecht in May 1674 cf. Molhuysen 1918 vol. 3: 288, 290-2; also cf. Cramer 1889: 95-7; McGahagan 1976: 335-8; Otterspeer 2002: 53; Poelgeest van 1990: 111; Wiesenfeldt 2002: 58-9.

with Wolferd Senguerd (1646-1724) on 7 January 1676. On this same date Antonius Hulsius also became a *professor ordinarius* in the theological faculty, where shortly thereafter Stephanus Le Moyne would also arrive.¹⁰⁷ With their choice of nominations and promotions the curators clearly tried to establish a more respectable and comfortable position for the conservatively oriented at their university, but in order for this approach to succeed they also needed to silence some of De Vries' previous offenders. The students themselves were obviously the first to be warned, but as had already been indicated by De Vries himself: 'it had especially been certain members of staff, - who were held in very high regard at the university -, that had instigated the banter against his tuition'.¹⁰⁸ For this reason the curators had scheduled a meeting with the theologians Heidanus, Spanheim, and Wittichius; and the philosophers Melder, Spinaeus, and De Volder, - who were all reminded of the fact that they ought to treat the Aristotelian philosophy and its defenders with tolerance and respect. The curators thereupon also called Craanen in for a meeting, who reportedly had been the cause of De Vries' departure, but they let him off the hook with a brief apology. Some less prominent figures such as Johannes Swartenhengst and Cornelis Bontekoe, however, did not manage to escape the consequences of their behaviour as easily.¹⁰⁹

Cornelis Bontekoe (whose name can be translated as *spotted cow*) likewise originated from the town of Alkmaar, and since he and Swartenhengst were roughly the same age they presumably already met each other in Latin school. Bontekoe matriculated at Leiden's medical faculty in September 1665, where he quickly graduated as a Doctor in

¹⁰⁷ Senguerd had already been nominated as *professor extraordinarius* in philosophy on 20 February 1675, while Antonius Hulsius had previously already been functioning as regent of the State College since 1668 (cf. Molhuysen 1918, vol. 3: 264, 294, 304, 307, 312, 321; also cf. Eekhof 1921: 58*-60*).

¹⁰⁸ “[M]aer dat hy van den aenbeginne dat hy sich alhier metter woon hadde ternedergesteld soo veele vervolging, affronten en injurien hadde moeten lijden van die geene, die de Carthesiaensche Philosophie toegedaan sijn, en de oude peripathetische Philosophie met een indiscrete ijver soeken te dempen ende te supprimeren, dat hy beslooten hadde alleen om die reeden dese Academie te verlaten ende sich te begeeven in een plaets, daer hy sijne institutie ende publicque exercitien met meer vrughten, soo hy verhoopte, met minder invidie soude konnen te werk leggen, **te meer om dat hy niet duysterlyk hadde konnen sien dat alle de voors[genoemde] wederwaardigheden haer eerste beweginge hadde gehad van die geene, die in de voors[genoemde] Universiteyt met aensienlyke characters waren bekleet;** ende dat hy daerom des te minder gepersuadeert konde sijn dat hy door de autoriteyt van de Senaet in sijne institutie nae behooren gehanthaeft ende tegens alle injurie geprotegeert soude werden” (Molhuysen 1918, vol. 3: 291).

¹⁰⁹ On the curators' warning against the students and their meeting with some of the professors in the theological and philosophical department, as well as with Theodoor Craanen cf. Molhuysen 1918, vol. 3: 240*-241*, 288, 292-3; also cf. Cramer 1889: 96-101; McGahagan 1976: 337-8; Wiesenfeldt 2002: 58-9.

medicine on 6 May 1667. He thereupon left the university in order to commence a medical practice in Alkmaar, De Rijp, and thereupon The Hague. It had been Bontekoe's fiery temperament and innovative medical practice that frequently put him at odds with local co-physicians, which is why he repeatedly changed town. Bontekoe was living in The Hague when he once again enrolled at the university of Leiden in the spring of 1674, where he attended Craanen's medical lectures and also commenced his posthumous edition of Arnold Geulincx's *Ethics*. In the meantime Bontekoe took pleasure in stirring up the student population against such old school professors as De Vries, Hulsius, Spanheim, and Senguerd, which apparently caused these academics severe distress as is shown by De Vries' departure.¹¹⁰ It will probably have been for this reason that the rector Arnoldus Syen disallowed Bontekoe to still participate in any of the public exercises at the university in July 1674, although as an exceptional measure he was still permitted to figure as an opponent in Swartenhengst's disputations. Even though it seems as if Swartenhengst enjoyed his friend's participation with whom he shared his Cartesian and Geulincxian sympathies, other colleagues were apparently less taken by their behaviour as appears from their mutual dismissal.¹¹¹

Even before their dismissal on 18 December 1675, however, Bontekoe had already once more entangled himself in a dispute with the theologian Fredericus Spanheim together with his comrade Cornelis van der Linden in January 1675. Although the curators explicitly forbade Bontekoe and Van der Linden to any longer participate in any of the academic exercises after this incident, the former still continued his opposition in

¹¹⁰ For the biographical details on Bontekoe's studies and career cf. Baumann 1930: 172-3; Bruinvis 1892: 407-9; Ruler van 2003a: 128-9. In his *Apologie van den Autheur tegens sijne Lasteraars* (1679) Bontekoe narrated on his conflict with Gerardus de Vries that had centred on the Cartesian doubt (cf. Bontekoe 1679: 359-66; also cf. Bruinvis 1892: 411).

¹¹¹ The acts of the senate from 9 July 1674 state the following concerning Bontekoe's allowance to still oppose in Swartenhengst's disputations: "Postquam quidam Doctor Bontekoe multoties immodeste in Academia opposuerat variasque excitaverat turbas et aliquoties admonitus a Rect[ore] Mag[nifico] mores non mutaverat, tandem, eum contra consensum Rectoris de novo, eodem modo opposuerat, per pedellum sub gravissima poena ipsi interdicta fuit opponendi potestas; nihilominus humiliter petenti, ut opponeret contra D[ominum] Swartenhengst, concessum fuit, in quo se modeste gessit" (Molhuysen 1918, vol. 3: 283). During his lifetime Arnold Geulincx had still produced a short treatise on the practical procedure of the disputation, entitled *Tractatus de officio disputantium*, in which he described the role of the *opponent* together with the *defendens*, *resumens*, and *praeses*. As appears from the later resolution on their dismissal, Bontekoe and Swartenhengst do not seem to have taken their master's educational instructions to heart, who ideally expected the participants to display a modest and sincere attitude in such disputations (cf. Land 1891-3, vol. 2: 112-22; also cf. De Vleeschauwer 1950: 87-101).

Swartenhengst's disputations as appears from the decree of their dismissal.¹¹² The atmosphere at the university had, nevertheless, changed significantly; and in order to safeguard the continuation of the Cartesian tuition certain members of staff, now, also started to dissociate themselves from those whom they considered as the chief troublemakers. In a conversation with Gaspar Fagel on 28 June 1674, for example, the professors De Volder, Heidanus, and Wittichius had informed Holland's Grand Pensionary that it were 'certain people rather than the Cartesian philosophy itself that was to be blamed'.¹¹³ It might have been no complete coincidence that it was only ten days later when the senate discussed Bontekoe's immodest behaviour and the uproars that he had thereby caused, which resulted in his exclusive participation to Swartenhengst's disputations. After his conflict with Spanheim in January 1675 Bontekoe was thereupon completely expelled from all the exercises, but he and Swartenhengst apparently were reluctant to comply with the curators' commands.¹¹⁴

Although it was Bontekoe who had already been reprimanded twice by the curators, in the end they mainly held Swartenhengst responsible for the irregularities that had occurred in his disputations. While Bontekoe was reprimanded on account of the fact 'that he had allowed himself to be used as an instrument for the repression of the Peripatetic philosophy', Swartenhengst was accused as the one who had effectively 'exposed the Peripatetic philosophy and its defenders to the mockery and derision of certain mischievous and dissolute personalities'.¹¹⁵ Besides, Swartenhengst also seems

¹¹² For the curators' disallowance of Bontekoe and Van der Linden to still participate or oppose in any of the academic exercises cf. Molhuysen 1918, vol. 3: 300-2; also cf. Cramer 1889: 97-8. For the resolution on both Swartenhengst's and Bontekoe's dismissal, from which it becomes apparent that Bontekoe had clearly contributed to the practical procedure of Swartenhengst's disputations cf. id: 313-14.

¹¹³ In his *Éloge de feu Mr De Volder* (1709) Jean le Clerc (1657-1736) provided a recapitulation of this conversation, which was based on De Volder's own notes. The latter indicated that during this conversation they had informed Gaspar Fagel that, 'if anyone ever used Descartes' philosophy in order to address political matters, the persons should be punished and not the philosophy (*puniantur personae non res*)'. Almost certainly this will also have been a reference to Benedict de Spinoza's *Tractatus theologico-politicus* from 1670. But since these Leiden professors had also visited Gaspar Fagel with the explicit intention of dissuading him to take measures against the Cartesian philosophy at their university, the suggestion 'to punish certain people rather than the concept' might also have applied to their own academic context (cf. Clerc le 1709: 356-9; also cf. Wiesenfeldt 2002: 60-1).

¹¹⁴ Cf. Molhuysen 1918, vol. 3: 283, 301-2.

¹¹⁵ "De C[uratoren] ende B[urgemeesters] kennisse te bekomen hebbende dat eene Doctor Bontekoe sigh **als een instrument tot suppressie van de peripatetische Philosophie latende gebruyken [...]**" (Molhuysen 1918, vol. 3: 314); "[...] mitsdien bemerkende dat den voorn[noemde] Joannes Suartenhengst directelyk tegens haer Ed[ele] Gr[oot] Mo[gende] resolutie door alle wegen ende middelen de voors[genoemde] peripatetische Philosophie soo met odieuse bynaminge als openbare bespottige

to have been guilty of the exact same behaviour for which Bontekoe had already been told off. For as was indicated in the decree of his dismissal: ‘he had ridiculed and abused the Peripatetic philosophy and its protectors with a venomous intention, while in the meantime he also demonstrated an immoderate zeal in his defence of the Cartesian philosophy, with which he imbibed his students on each and every occasion in both his private and public tuition’:

“[...] not only had he defended the Cartesian philosophy with an immoderate zeal and had he imbibed his students and audience with Descartes’ opinion on each and every occasion in the public as well as private exercises. Also had he publically mocked, scorned, ridiculed, and dishonoured the Peripatetic philosophy and its protectors with a virulent intention. This had resulted in the useless ending of various disputations, while the honour and fame of honest people had been assaulted, the students had been stirred up to great trouble and mischief, and the respect which one owed to the auditory in the presence of many respectable gentlemen had been peevishly violated.”¹¹⁶

Although it had not been uncommon for the practical disputations to occasionally degenerate into mud-slinging, the curators obviously saw no profit in such behaviour in the current situation. Even if Swartenhengst and Bontekoe might have enjoyed positive reputations amongst the students (who only added to such escalations by shouting, banging their feet, and throwing beans), for Swartenhengst his career as lector was permanently ended at this moment.¹¹⁷ Henceforth Bontekoe and he were no longer allowed to sit in on any lectures, disputations, or public exercises; and neither were they permitted to tutor in private any longer. As yet, the curators were not as thorough in the

getracht heeft te discrediteren, ende alle de geene, die deselve toegedaan souden mogen sijn, **aen de spott en smaet van verscheyde dertele ende dissolute menschen te exponeren [...]**” (cf. id.: 313).

¹¹⁶ The original quotation in Dutch reads as follows: “[...] dat hy niet alleen de Carthesiaensche Philosophie met een immoderaten ijver doorgaans voortgeset ende de opinie van Descartes by alle occasie soo in ’t publicq als in private exercitien in de gemoederen van sijne discipulen ende toehoorders geimprimeert, nemaer de peripathetische Philosophie ende de geene, die deselve soude mogen profiteren, met een nijdhig opsett soodanig publice beschimpt, veraght, bespott ende ten thoon gestelt soude hebben, dat veele ende verscheyde disputatien daerdoor vrugteloos afgeloopen, de eer ende faem van eerlycke luyden aengetast, de studenten tot veele insolentien ende dertelheden aengehitst ende het respect, hetgeen men aen het auditorium ende aen de presentie van veele aensienelycke mannen schuldig was, op een seer petulante wijze geviolert soude sijn [...]” (cf. Molhuysen 1918, vol. 3: 313).

¹¹⁷ On the escalations that occasionally occurred during such disputations, the corresponding behaviour of the students, and the overly dominant role of the *praeses* who sometimes hardly gave the *defendens* the opportunity to speak cf. Cramer 1889: 8, 62; Vleeschauwer de 1950: 91, 97-8; Wansink 1981: 23.

implementation of their sentence as the decree of their dismissal let off, for Swartenhengst and Bontekoe were *both* still allowed to renew their enrolment in the university's *recensielijsten* in February 1676.¹¹⁸ If one looks at the continuation of events during the following months, however, it does not seem as if Swartenhengst and Bontekoe will have been able to create any more difficulties at the university. In reply to a resolution with twenty prohibited propositions that had been drawn up by Hulsius and Spanheim in January 1676, Heidanus, Wittichius and De Volder published their *Consideratiën over eenige saecken onlanghs voorgevallen in de universiteyt binnen Leyden*. This treatise, which only appeared under Heidanus' name, surprisingly led to the 79-year old professor's dismissal. In Chapter Two the details of this theological-philosophical conflict will be briefly discussed, but as for now it suffices to say that the past tensions over the Cartesian philosophy henceforth simmered down at Leiden.¹¹⁹

1.4.3 Family Life and Later Career

Swartenhengst had, thus, still been allowed to continue his annual enrolment at the university in February 1676, and surprisingly he continued to renew his registration until February 1691. Although it is unsure whether Swartenhengst was still associated with the university in a professional manner, his ongoing enrolment at least confirms his continued residence in Leiden's surroundings.¹²⁰ In 1683 Swartenhengst's son, Guilielmus Swartenhengst, also matriculated at the university in an unspecified faculty at the age of thirteen. From now on Swartenhengst and his son (who was living with his father during these years) renewed their enrolment on the same date, but after 1692 both their names disappeared from the university's *recensielijsten*. As is indicated in the *Album studiosorum*, Swartenhengst's son was allowed to matriculate for free, which

¹¹⁸ For the renewal of Swartenhengst's inscription at the university cf. ASF 46, *Recensielijsten*; for Bontekoe's renewal also cf. Bruinvis 1892: 411. When Swartenhengst had once more asked the curators whether he would again be allowed to tutor in private in August 1679 they did not answer his request (cf. Molhuysen 1918, vol. 3: 349).

¹¹⁹ For Abraham Heidanus' (1597-1678) dismissal on 5 May 1676 cf. Cramer 1889: 43-4, 101-19; McGahagan 1976: 321, 342-3; Otterspeer 2002: 59-61; Wiesenfeldt 2002: 77-82.

¹²⁰ For Johannes Swartenhengst's continued enrolment at the university from February 1676 until February 1691 cf. ASF 46-61, *Recensielijsten*. Swartenhengst's on-going enrolment does not necessarily imply his active involvement at the university, since many citizens of Leiden simply enrolled themselves or their children in order to enjoy the taxation freedom on wine and beer (cf. Otterspeer 2003: 604; Wansink 1981: 5-6).

might have been related to Swartenhengst's previous association with the university, or possibly also to certain difficulties in his financial situation.¹²¹ When Swartenhengst had witnessed the marriage of his brother-in-law - Crijn Jansz - on 2 November 1673, he and his family were living on the Faliede Begijnhof, which was rented at low cost to either students or certain associates of the university. Besides, Swartenhengst's wife Dieuwertgen gave birth to their children in the *Gasthuys*, which was destined for the poor (since generally women delivered their children at home).¹²²

Although it is unsure whether Swartenhengst and his family had spent their days in poverty, his drinking habits will in any case not have benefitted their financial situation if C. W. Bruinvis' (1856: 214) biographical article is to be believed. In contrast to his partner in crime, Cornelis Bontekoe, who swore by the drinking of tea; - 'Swartenhengst reportedly gave in to the abuse of wine on later age, and while rolling himself in the mud drunk, he often screamed *sic itur ad astra* (i.e. thus one goes to the stars)'.¹²³ Although I found no documents with which to confirm Bruinvis' quote, it should be admitted that Swartenhengst's social conduct certainly was at odds with the communal expectations in certain respects. Between October 1666 and October 1677 Swartenhengst's wife Dieuwertgen bore him seven children, but after this date she might have either died or possibly Swartenhengst committed adultery.¹²⁴ On 12 January 1679 another child from a mother named Anna de Bruijn was baptised under Swartenhengst's name, which he refused to acknowledge as appears from the *acta* of

¹²¹ For Gulielmus Swartenhengst's matriculation on 6 August 1683 and the annual renewal of his enrolment at the university until February 1691 cf. Rieu du 1875: 662; ASF 53-61, *Recensielijsten*. Initially Guilielmus might also have matriculated at the university in order for his family to enjoy the taxation freedom on wine and beer, because although he currently indicated to have been sixteen years old, he had been baptised in the Hooglandsche Kerk on 26 May 1670 (cf. Leiden, *Nederlands Hervormde Dopen* 1621-1700, vol. 204).

¹²² For the marriage of Swartenhengst's brother-in-law Crijn Jansz cf. Leiden, *Nederlands Hervormde Ondertrouw* 1673-77, Arch. Nr. 1004, Inv. Nr. 21, Folio W-032. On the accommodation in the Faliede Begijnhof cf. Zoeteman-Van Pelt 2011: 316-17. For the birth and baptism of Swartenhengst's and Dieuwertgen's children cf. Leiden, *Nederlands Hervormde Dopen* 1621-1700, vol. 204; Leiden, *Nederlands Hervormde Dopen Hooglandsche Kerk* (1667-79), Arch. Nr. 1004, Inv. Nr. 238-9.

¹²³ "[M]aar later gaf hij zich aan het misbruik van wijn over; beschonken zijnde, liep hij in het water, dat gelukkig niet diep was, en riep in den modder wentelende uit: "*Sic itur ad astra!*" dat hij veel in den mond had (Bruinvis 1856: 214; also cf. id. 1892: 407-9). Thus far, I was only able to check the *acta* from the *Nederlandse Hervormde Kerkenraad* in Leiden until 1681.

¹²⁴ For the baptisms of Swartenhengst's seven children with Dieuwertgen Willems, who were named Pieter (17 October 1666); Johanna (22 July 1668); Willem (26 May 1670); Joanna (11 November 1671); Jacobus (8 October 1673); Catharina (7 April 1675); and Maria (24 October 1677) cf. Leiden, *Nederlands Hervormde Dopen* 1621-1700, vol. 204; Leiden, *Nederlands Hervormde Dopen Hooglandsche Kerk* (1667-79), Arch. Nr. 1004, Inv. Nr. 238-9.

the Leiden consistory. His attempt to distance himself from the child and the mother did not go down too well with the consistory, however, which prohibited him from taking communion as long as he did not adapt his stance. Whether Swartenhengst eventually acknowledged the child or married the mother is unknown, since the reference to the decease of his ‘wife on 23 August 1684 in Oegstgeest’ might also still have referred to Dieuwertgen Willems.¹²⁵

Although Swartenhengst had stopped his enrolment at the university of Leiden after 1691, he lived up to around the age of sixty-seven and at the time of his death in January 1711 he was buried in the town-walls. Prior to his decease Swartenhengst had, thus, still lived through such major historical events as the Glorious Revolution in 1688 and the onset of the Second Stadholderless Period after William III’s decease in 1702. In Swartenhengst’s private conduct, however, few changes would ever occur, since another illegitimate child (*spurius*) from the mother Marij Staverinus was still baptised under his name in September 1690.¹²⁶ Although Swartenhengst, thus, still had to support various children, it is unclear what happened in his life on the professional level. If his private conduct is taken into consideration, however, a career amongst the Dutch Reformed clergy can almost certainly be excluded, whereas a career on the basis of his medical qualifications would have been more likely (5% of the Dutch students made a career as a doctor). Seeing that there had currently been a surplus of physicians in the Dutch Republic, it is nevertheless also possible that he chose another common profession, such as the office of city magistrate, civil servant, barrister, or teacher.¹²⁷

At the beginning of this chapter a quotation was presented from Heidanus’ *Consideratiën over eenige saecken onlanghs voorgevallen in de universiteyt binnen Leyden* (1676: 24), which was written within months after Swartenhengst’s and

¹²⁵ For the baptism of Swartenhengst’s child with Anna de Bruyn, who was named Anna cf. Leiden, *Nederlands Hervormde Dopen Hooglandsche Kerk* (1674-79), Arch. Nr. 1004, Inv. Nr. 239. For the acts of the Leiden consistory from January and March 1679 cf. Leiden, *Nederlands Hervormde Kerkenraad* (1666-1681), Arch. Nr. 511B, Inv. Nr. 6. For the decease of Swartenhengst’s unnamed wife cf. Leiden, *Begraven buiten Leiden* (1684-1707), Arch. Nr. 501A, Inv. Nr. 2064.

¹²⁶ For ‘Jan’ Swartenhengst’s decease cf. Leiden, *Index begraafboeken*, 1711-1721, vol. 24. For the baptism of this illegitimate child, Johannes Swartenhengst, from the mother Marij Steverinus on 17 September 1690 cf. Leiden, *Nederlands Hervormde Dopen Pieterskerk*, (1689-98), Arch. Nr. 1004, Inv. Nr. 225.

¹²⁷ Concerning the relation between university studies and professionalization cf. Frijhoff 1996: 385, 401, 406, 408.

Bontekoe's dismissal. In this fragment Heidanus posed the question: 'What big minds appear every day, and whether they found any truths in the books of their parties? Or whether, like the spider's head, they suck venom from the same thing from which the bee exerts its honey?' In this quotation Heidanus specifically reacted against an enemy in the Voetian camp, Leonardus Rijssenius, who in 1674 published a work in which he attacked numerous proposition that he ascribed to either Descartes, Cocceius, as well as various other Dutch theologians.¹²⁸ Seeing that on the occasion of Swartenhengst's dismissal the curators had likewise spoken of the 'virulent intention' with which he had attacked the Peripatetic philosophy, however, it seems that Heidanus' accusation can also be applied to certain members of the Cartesian front, who likewise displayed an immoderate zeal in de the defence of their cause.¹²⁹

In the next chapter I will more closely analyse the theological-philosophical issues that were at stake in the Cartesian battles at Dutch universities from the 1640s until the 1670s, in order to obtain a better understanding of the offense that Swartenhengst's aggressive anti-Aristotelianism and overzealous Cartesianism may have caused.

¹²⁸ "Wat groote verstanden komender niet alle dage te voorschijn? of die lieden wel yet goets, of eenige waarhey in de Boecken van hare partye gevonden hebben? of ist soo, dat sy als de Spinnkop alleen fenijn suygen uyt het geene daar de Bye den Hoonigh uyt treckt?" (Heidanus 1676: 24). With this quote Heidanus reacted against a work from Leonardus Rijssenius (1674), entitled *De oude rechtzinnige waerhey verdonckert, en bedeckt door Descartes, Coccejus, Wittich, Burman, Wolzogen, Perizon, Groenewegen, Allinga etc. En nu weder op-geheldert en ontdeckt door Leonardus Rijssenius* (cf. Cramer 1889: 128-30).

¹²⁹ "[N]emaer de peripathetische Philosophie ende de geene, die deselve soude mogen profiteren, met een **nijdigh opsett** soodanig publice beschimpt, veraght, bespott ende ten thoon gestelt soude hebben [...]" (Molhuysen 1918, vol. 3: 313).

“Vous disputez sagement contre l’impertinence des Predicateurs, descrians sans retenue les pechez du peuple ou du magistrat en chaire. Mais cela en alarmera beaucoup d’autres aveq Voetius contre vous. Un homme estourdi me fit un jour une plaisante comparaison, disant, que les Theologiens estoyent semblables aux porceaux; qui, quand on en tire un par la queuë, tous crient.”

CONSTANTIJN HUYGENS TO RENÉ DESCARTES, (6 June 1643) in: Bos, E.J. et al. (eds.), (2003), *The Correspondence of René Descartes 1643*: 83.

CHAPTER 2

DUTCH CARTESIANISM AND THE THEOLOGICAL CONTEXT

Thus, Swartenhengst's dismissal together with Cornelis Bontekoe was closely related to the enhanced pressure of the orthodox wing in the Dutch Reformed Church after William III's coup d'état in 1672. In the current chapter the content of the criticisms that Aristotelian philosophers and theologians voiced against the Cartesian philosophy during the present as well as previous decades will be more closely analysed. One of the long term opponents against the Cartesian philosophy was the Utrecht rector and minister, Gisbertus Voetius (1589-1676), who exerted a leading role as anti-Cartesian protagonist from the late 1630s onwards. Voetius' orthodox following in the Dutch Reformed Church (the so-called 'Voetians') had already taken root at the beginning of the *Nadere Reformatie*: a pietistic current in the public church that had commenced under the influence of Willem Teellinck in 1608. Presently, Voetius had still been a theology student at the university of Leiden, where feelings were running high on the matter of predestination. When the Gomarists eventually triumphed at the Synod of Dordrecht in 1619 this had simultaneously resulted in a period of flourishing for the adherents of the Further Reformation, of which Voetius soon became one of the main spokesmen.¹

Both the movement of the Further Reformation that thereupon continued under Voetius' lead, and the earlier conflict between Remonstrants and Counter-Remonstrants, were significant for the reception of René Descartes' philosophy in the Dutch Republic. In due course Voetius would, thus, also reveal himself as the leading opponent against the Cartesian philosophy, whose threatening force he closely associated with the Arminian-Gomarist controversy that had shaken Dutch society at the beginning of the century.² For this reason I have considered it useful to commence this chapter with a concise

¹ For the history of the *Nadere Reformatie* (i.e. 'Further Reformation') in the Dutch Republic cf. Deursen van 1996: 30-6; Israel 1995: 474-7; Vermij 1991: 60. For a concise biographical overview on Gisbertus Voetius cf. Ruler van 2003f: 1030-9.

² Cf. McGahagan 1976: 1-5, 13-14, 35-8.

description of the breakthrough of the Calvinistic doctrine in the infant Republic, whose new-born public church soon became a hotbed for internal dissensions. The theological rift between Arminians and Gomarists was settled with Prince Maurits' coup d'état and the Synod of Dordt in 1618, but it soon appeared that there were still plenty of occasions for future disagreements between orthodox and lenient theologians. The breakthrough of Descartes' philosophy during the late 1630s certainly contributed to the strife between theological factions in the Dutch public church. Hence, this chapter will thereupon proceed with a discussion concerning the practical details from Descartes' lifetime in the Dutch Republic and the theological threats that were perceived in his philosophy. In the final section of this chapter the theological-philosophical frictions at the time of Swartenhengst's dismissal will be analysed in more detail, which discussion once again clearly demonstrates the close association between church, state, and the intellectual climate in the seventeenth-century Dutch Republic.

2.1 THE DUTCH REVOLT AND THE DEBATE ON PREDESTINATION

At the start of the Lutheran Reformation in Germany in 1517, the northern and southern Netherlands were still both subjected to the control of King Charles V, whose programme of the Inquisition initially managed to curb a Protestant breakthrough.³ Calvinism did not make its first impact in the Netherlands until the late 1550s, when it nevertheless soon came into the open on account of a decline in the Spanish military. Due to the previous decades of Protestant oppression substantial parts of the population were, now, thoroughly alienated from the Catholic Church, which led to the rapid absorption of Calvinistic theology into society. This sudden upsurge of Protestant sentiments in the Low Countries was also supported by the local nobility, who voiced an appeal for the denunciation of the Inquisition in 1666. King Philip, nevertheless, refused to grant this request and soon crushed the resulting iconoclastic fury by sending an army up north under the command of Duke of Alva. Upon the rumour of Alva's

³ In the northern Netherlands only Holland and Zeeland were presently subjected to the control of Charles V, who annexed the remaining Dutch provinces into the Habsburg Netherlands over the period 1516-43 (cf. Darby 2001: 10-12; Israel 1995: 34-5, 55-64).

arrival numerous noblemen had fled the country, but in 1668 these exiles in Germany united themselves under the banner of William the Silent (1533-84).⁴

And thus, the Eighty Years' War commenced. In the beginning William's armed forces were no match for the Spanish army, but during the spring of 1672 the rebels' Sea-Beggars fleet managed to seize numerous ports and towns in Holland and Zeeland. Although Orange had initially tried to temper the popular onslaughts on the established church, Catholic worship and priests were now spontaneously expelled from those towns that had rallied to the Beggars and the Prince, while the Reformed practice was being instituted in the primary town churches. The inland provinces in the northeast and various southern towns had also joined the revolt, but after the St Bartholomew's Day Massacre in August 1572 Alva had aggressively crushed the rebelling spirit in these latter areas. At the start of the winter in 1572 only Holland and Zeeland remained in the revolt, but on account of the stiffened resolve amongst their citizenry and the clever deployment of their fleet and waterline both provinces, as yet, surprisingly managed to withstand the Spanish sieges over the course of the following three years. Now that the threat of a full-fledged Spanish invasion had been temporarily fought off, Holland and Zeeland tried to enhance their governmental efficacy by signing a particular union in which they officially agreed to protect the Reformed religion, while all signs of public Catholic worship were henceforth officially prohibited.⁵

⁴ Cf. Israel 1995: 48-54, 74-87, 94-6, 93-105, 137-62; Kossmann 1991: 283-5; Pettegree 2001: 67-78. For this petition with which the Compromise of Nobles confronted the regent in April 1566, as well as for the divergent roles that were played by the higher and lesser nobility north and south of the rivers in the continuation of the revolt cf. Nierop van 2001a: 33-40, 43-5; id. 2001b: 48-64. Concerning the Anabaptist movement and the early establishment of Calvinistic congregation in the Low Countries cf. Deursen van & Schutte 1996: 3-8. On the importance of the Dutch refugee congregations in Germany for the dissemination of the Calvinistic doctrine into the Low Countries cf. Bremmer 1984: 59-64.

⁵ Cf. Israel 1995: 162-3, 170-84, 196-8, 361-3. Prior to this union from June 1575 Catholic services were already prohibited in Holland during the spring of 1573. On account of the much-resented memory of the Spanish Inquisition this prohibition of public Catholic worship would never result in any actual prosecutions, but the liberty to adhere to the Catholic faith was for some decades restricted to the private sphere. Initially the new Reformed congregations grew but slowly, however, and in 1587 it had still been no more than 10% of Holland's population that were active members to the Dutch Reformed Church. In comparison to England and Germany (where church attendance was enforced) these numbers were sparse, but the confessionalisation process stabilised around the second quarter of the seventeenth century when the tense attitude towards deviant confessions was simmering down (cf. Bremmer 1984: 79-81; Darby 2001: xvi; Israel 1995: 197-8, 360-7, 377-89; Pettegree 2001: 79).

Now that the revolt had been fairly securely established in the States of Holland and Zeeland, the southern Netherlands also joined the revolt with the signing of the Pacification of Ghent together with Holland, Zeeland, and Utrecht. The participating provinces mutually agreed on expelling the Spanish military from their territories, but they failed to reach a uniform religious settlement: Holland and Zeeland insisted on their exclusive commitment to the Reformed religion, while the other provinces desired to remain subjected to the Catholic Church. When the Spanish forces reinvaded Brabant in 1578, the rebelling spirit amongst the southern patriciate had rapidly weakened and their commitment to the Catholic Church intensified; whereas in the northern Netherlands the zeal for the acceptance of public Protestant worship was meanwhile spreading into the provinces of Utrecht, Friesland, and Gelderland.⁶ A nearly decisive breach in the mutual north-south revolt occurred with the signing of the Union of Utrecht in January 1579, by which a defensive structure under Holland's lead had been created that greatly diminished the central authority of the States General in Antwerp.⁷

Over the following years the Spanish reconquests in the south forced the States General to move north of the rivers, and a definite separation between the northern and southern Netherlands emerged with the Fall of Antwerp in 1585. In this same year Queen Elizabeth I of England agreed to offer military support to the northern Netherlands, where the Earl of Leicester became her representing governor-general. After Leicester's failed coup d'état in 1587 the United Provinces refrained from appointing another foreign sovereign, and henceforth they became an official republic under the lead of the Advocate of Holland, Johan van Oldenbarnevelt (1547-1619). The chances for the lasting survival of the Dutch Republic were starting to appear all the more likely, due to the Advocate's energetic political leadership in combination with the military command of the Stadholder, Prince Maurits of Orange-Nassau (1567-1625). From the 1590s

⁶ This widespread urge amongst the southern nobility to remain faithful to the old church did not apply to all towns. Notable exceptions were Ghent, Antwerp, Bruges, and Brussels, which were militantly committed to the Reformed Church and even considered Orange's campaigning for 'religious peace' as far too soft-handed (cf. Bremmer 1984: 113-20, 128-33; Israel 1995: 193-6; Pettegree 2001: 80).

⁷ Cf. Bremmer 1984: 102-14, 136-9, 143-57; Israel 1995: 184-201. Initially some of the Flemish and Brabant towns had still joined the Union of Utrecht, but during the 1580s these provinces were so disruptively reinvaded by the Spaniards that their last town with a vote in the States General had been reabsorbed into the Habsburg Netherlands with the fall of Antwerp in August 1585.

onwards the Prince's military advancements gradually transformed the Republic into a credible contestant and the first armistice with Spain was signed in 1607.⁸

Whereas the subsequent negotiations for a truce benefitted greatly from Van Oldenbarnevelt's efforts, the Stadholder had been opposed to the peace talks with Spain. As yet, Maurits did not hold enough leverage to prevent the signing of the Twelve Years Truce in 1609, but neither was it any longer a secret that the Stadholder shared his anti-Spanish sentiments with the orthodox members in the Dutch Reformed Church. In 1607 Van Oldenbarnevelt had tried to silence the dissension in the public church by calling for a National Synod for the purpose of accommodating the *Confessio Belgica* to a broader doctrinal interpretation. This proposal had received such widespread opposition amongst the Calvinistic clergy that an actual Synod in the end never happened.⁹ The discussion concerning the accommodation of the Confession would, nevertheless, still live on as part of an earlier theological conflict on predestination that had commenced at the university of Leiden in 1604. Here Jacobus Arminius' deviant reading on the matter of predestination had clashed with the dogmatic interpretation of his colleague Franciscus Gomarus. The dispute soon evolved into a nationwide conflict. In due course Prince Maurits had started to openly side with the Gomarists (or Counter-Remonstrants as they were called from 1611 onwards), which resulted in the overthrow of Van Oldenbarnevelt's republican regime in 1618.¹⁰

⁸ Cf. Israel 1995: 201-62, 399-405. In succession to his father Maurits had been appointed Stadholder of Holland and Zeeland (and thereafter also Utrecht, Overijssel, and Gelderland) in November 1585, which position provided him with the shared military command over the Republic's national army together with the Frisian Stadholder Willem Lodewijk of Nassau-Dillenburg (1560-1620) (cf. Israel 1995: 224, 237-8, 241-62).

⁹ With his call for a National Synod Van Oldenbarnevelt had intended to settle an earlier dispute concerning the church order that he had unsuccessfully tried to implement in 1591, in order to provide the States of Holland with a stronger handle on church affairs. The *Confessio Belgica* was the national Confession of the Netherlands, which had been written by Guy de Brès in 1561, and was perceived as absolutely unalterable by the majority of the Calvinistic clergy (cf. Bremmer 1984: 59, 61; Hoenderdaal 1975: 141, 144; Israel 1995: 393-4, 422; Pettegree 2001: 71-2).

¹⁰ Cf. Hoenderdaal 1975: 137-44; Israel 1995: 393-4, 421-49. In short, this dispute on predestination concerned the question whether God had decided to save some and condemn others before Creation, so that man's salvation exclusively depended upon God's grace; or whether man's faith was also allowed to determine his salvation? In accordance with article 16 of the *Confessio Belgica* Gomarus denied this latter possibility, while maintaining that faith only is the fruit of God's eternal predestination. In continuation of earlier criticisms that had already been voiced by the Jesuits, Arminius felt that such a view would turn God into the author of sin. Hence, Arminius introduced the concept of foreknowledge, according to which God had known in advance who would and who would not believe. Although Arminius had, thus, not rejected the concept of predestination, nor had he assigned a free will to human beings (as he has frequently been accused of); he was yet at odds with the dogmatic interpretation by attributing a larger

The fact that a purely academic theological dispute was able to create an ecclesiastical rift that affected the entire society can probably be explained from the fact, that after the conflict on predestination had gone beyond the university, Arminius' person soon became a symbol for the supremacy of state over church. Seeing that Arminius had never explicitly dealt with church-state relations in his own writings, the Erastian leanings of which his opponents accused him were to some extent exaggerated. As yet, the Arminians had repeatedly sought support from the States of Holland at times of conflict, as happened during Arminius' lifetime in 1607, and once again happened when the *Remonstrance* was presented to the States of Holland shortly after his death in 1610.¹¹ While the Arminian-Gomarist disagreement had hitherto remained confined to the province of Holland and Utrecht, it thereupon extended into the other provinces and even caught the attention of King James I in England. While Van Oldenbarnevelt had thus far backed up the Arminians (or Remonstrants as they were called after 1610), the conflict was now adopting such unsettling proportions that he decided to implement a middle-way measure that ought to have reunited both factions. For this purpose Hugo Grotius (1583-1650) had published the placard 'For the Peace of the Church' in 1614, but since the Remonstrant towns mainly employed this placard for the repression of their opponents it only intensified the mutual animosity.¹²

From the years 1616-1617 onwards the divisions in the church also started to exert a stronger impact in society, because substantial numbers of people were now trekking out of the towns to attend the Counter-Remonstrant services on the countryside. In July

value to the importance of faith and by introducing the concept of divine foreknowledge against which John Calvin (1509-64) had explicitly warned (cf. Hoenderdaal 1975: 138-9; Israel 1995: 393; Knoeff 2002: 60-2; Otterspeer 2000: 212-13, 243-5).

¹¹ Cf. Hoenderdaal 1975: 139-44; Israel 1995: 422-6; McGahagan 1976: 35-7. At the time of Van Oldenbarnevelt's call for a National Synod in 1607 Arminius had filed a minority report with the States of Holland together with Johannes Uytenbogaert and two ministers from Utrecht, in which they supported the view that a revision of the *Confessio Belgica* should appear on the agenda of the Synod. Likewise, the *Remonstrance* had been presented to the States of Holland within months after Arminius' decease, in which this same Uytenbogaert had faithfully reproduced Arminius' views. At a conference of 1611 their opponents had reacted with the *Counter-Remonstrance*; - in which they rejected any adaptations to the Confession; restated Gomarus' view on predestination; and defended the autonomy of the church (cf. Hoenderdaal 1975: 139-44; Israel 1995: 422-6).

¹² Cf. Israel 1995: 426-32. In 1611 Van Oldenbarnevelt had assigned the German theologian Conradus Vorstius to fill in Arminius' empty chair at Leiden, who was nevertheless associated with Socinian leanings. Hence, this nomination provoked a tremendous range of protest from the Counter-Remonstrants. But also King James I of England was so appalled when he heard of this recent nomination, that he filed a complaint with the States General in 1612. In the end Vorstius was never allowed to teach while others were nominated in his place (Hoenderdaal 1975: 149; Israel 1995: 428-30).

1617 the situation had deteriorated to such an extent that the Cloister Church in The Hague was seized by the Counter-Remonstrants, which instigated Prince Maurits to reveal his true colours and attend the mass in this latter church. Aware that the regents were increasingly losing their grip in the States of Holland, Van Oldenbarnevelt had presently raised his own troops (the so-called *waardgelders*) that were to protect the Remonstrant town councils. It, nevertheless, soon appeared that Van Oldenbarnevelt's decision involved an inconsistency, because there was only one Generality's army that held together with the Stadholder and the remaining provinces. By request of the States General Prince Maurits had disbanded the *waardgelders* in Utrecht with the help of the Generality's army in the summer of 1618, which induced Van Oldenbarnevelt to also relinquish his cause in Holland. Van Oldenbarnevelt's decision to raise his own troops was, however, interpreted as an act of treason against the Union, and thus he was arrested together with his principal advisor Hugo Grotius on 28 August 1618.¹³

The conflict between the Arminians and Gomarists had, thus, been settled with Prince Maurits' coup d'état of 1618 and the resulting Synod of Dordrecht, in which the orthodox dogmas and biblical interpretation were more strictly defined. After the overthrow of Oldenbarnevelt's regime in 1618, the Gomarists drove their opponents out of the public church; which made the church more stable and cohesive. Those subjects who were estranged by the new confessional block either deviated to the Remonstrant churches (once these had again been allowed to emerge in the open during the late 1620s), or they were permanently lost to the Dutch Reformed community. From the second quarter of the seventeenth century onwards the confessional lines in the Dutch Republic had, nevertheless, gradually stabilised, since the Dutch Reformed Church was now established as the largest confessional bloc by far in the nation. In the same year when René Descartes had published his *Discours de la méthode* in 1637, a new translation of the State Bible was also issued; which left scarce space for theological interpretation, and on that account generated future theological controversies.¹⁴ This

¹³ Cf. Israel 1995: 433-449. Hugo Grotius had backed up Van Oldenbarnevelt in his decision to let the States of Holland hire its own mercenaries, since he supported the view that sovereignty resided in the individual provinces. In opposition hereto, Prince Maurits' maintained that sovereignty was an affair that lay in between the provinces and the States General (cf. Israel 1995: 446-7).

¹⁴ Cf. Cramer 1889: 2; Deursen van 1996: 25; Israel 1995: 388, 394. I am here referring to the later conflicts between Cocceians and Voetians in the Dutch public church (cf. Broeyer & Wall van der 1994).

chapter will, now, proceed with a discussion concerning the practical details from Descartes' lifetime in the Dutch Republic and the theological dangers that were perceived in his philosophy.

2.2 THE BREAKTHROUGH OF CARTESIANISM IN THE DUTCH REPUBLIC

One of the reasons for Descartes to settle himself in the Netherlands from 1628 onwards had been the larger degree of tolerance and intellectual freedom that could be found in the still juvenile Republic, where the political and ecclesiastical format had not yet been as strictly defined as in other European nations. This lack of structure, nevertheless, also incorporated the downside that among parts of the population there was an extreme sensitivity to the smallest deviation from the newly established dogmas. Besides, when Descartes was launching his new views in the Dutch Republic, the previous strife between Arminians and Gomarists was still freshly imprinted on the memory of many theologians, and for this reason it had not been a complete coincidence that there are various overlaps between the accusations that were issued against both Arminius and Descartes. The troublesome reception of the latter's philosophy was, therefore, to a certain extent determined by the fears which this earlier conflict over the Arminian deviation from the traditional dogma had generated in Dutch society.¹⁵ In what follows the practical details from René Descartes' lifetime in the Dutch Republic will be discussed, as well as his rejection of the Aristotelian philosophy, and the theological problems that emerged from his mechanical physics.

In the immediate aftermath of the Synod of Dordrecht, however, only the Counter-Remonstrant view on predestination had still held validity (cf. Deursen van 1996: 23).

¹⁵ Cf. Hoenderdaal 1975: 137; McGahagan 1976: 35-8; Verbeek 1992: 5-6. In his *La liberté chez Descartes et la théologie* (1913) Etienne Gilson has compared Descartes' Fourth Meditation to the philosophical version of the theological problem of sin, which was also at stake in Arminius' account of predestination (cf. Gilson 1913: 266; Petrik 1992: 30).

2.2.1 Descartes' Life and His Rejection of the Aristotelian Philosophy

René Descartes was born in France in 1596, but he spent a substantial part of his life in the Dutch Republic. After completing his studies at La Flèche and obtaining a legal degree in Poitiers, Descartes made his first acquaintance with the northern Netherlands in 1618 while serving as a soldier in the Dutch state army. During the subsequent years Descartes travelled through Europe in order to explore 'the book of the world', and already in this period he conceived of his visionary dream concerning a universal science that exclusively described the world in mathematical measures. In 1625 Descartes abandoned his travels and returned to Paris, where he started to work on a treatise concerning the rules of this universal science that was based on the model of arithmetic and geometry. Because of the many distractions in this capital town Descartes was unable to finish the work, and he subsequently moved to the Dutch Republic in 1629 where he would stay for the next twenty years.¹⁶

Upon his arrival in the Dutch Republic Descartes' initial aim had been to publish a treatise 'On the World', in which he would replace the paradigm of Aristotelian physics with his famous mechanical worldview.¹⁷ The condemnation of Galilei Galileo (1564-1642) on the charge of Copernicanism in 1633, nevertheless, induced Descartes to refrain from this publication, because the hypothesis of the movement of the earth was still largely interconnected with his New Science.¹⁸ Thus, it was no earlier than 1637 when Descartes published the *Discours de la méthode* - together with three additional essays on dioptrics, meteors, and geometry -, that substantial parts of his mechanical

¹⁶ Cf. Descartes' *Regulae ad directionem ingenii* (i.e. 'Rules for the Direction of the Mind'). Certain parts in section 2.2.1 of this dissertation have also appeared in my article 'The Balance Between Determinism and Freedom in the Philosophy of René Descartes' that has appeared in the online journal *Sans papier* (cf. Bertrand 2010). This biographical overview of Descartes and his conception of the mechanical worldview is based on Haldane 1905; Jorink 2008: 19-37; Verbeek 1996; id 2003.

¹⁷ Upon his arrival in the Dutch Republic Descartes' earliest plan had been to build a machine for grinding lenses (which had been motivated by the earlier discovery of the telescope in 1608), but when he failed to engage the support of others he gave up on this project and he commenced with the writing of his treatise 'On the World' (cf. Jorink 2008: 30).

¹⁸ A Latin edition of Descartes' *De mundo* was posthumously published by Florentius Schuyt (1619-69) at Leiden in 1662, and in Paris the treatise appeared in French in 1664 (cf. Ruler van 2006: xxi). Having, thus, suppressed his treatise 'On the World', Descartes seems to have remained cautious on the topic of the movement of the earth in the third part of his *Principles* (1644). While mentioning such facts as the spots on the sun and the insufficiency of Ptolemy's hypothesis, Descartes still maintained that properly speaking the earth did not move, nor did the planets that were carried along (cf. *Principles* III.16, 28, 32 in Miller: 89-90, 94-5, 97; also cf. Dijksterhuis 1950).

worldview became available to a large audience. Apart from comprising an introduction into his epistemological method and dualistic metaphysics, the *Discours* also disclosed important parts of Descartes' optical and mathematical investigations, for which he already held a reputation within a smaller circle of acquaintances. As had already been the intention in his repressed treatise 'On the World', Descartes again attempted to establish an alternative for the dogmatic Aristotelian worldview in the *Discours*. On this account Descartes discarded the value of ancient book-wisdom and sensible knowledge, which were the essential epistemological pillars of the Scholastic tradition.¹⁹

With his methodological refutation of the writings of the ancients Descartes had touched upon delicate grounds, since the Aristotelian philosophy traditionally served as the didactical underpinning for the education in theology at the universities.²⁰ When apart from discarding the value of book-wisdom, Descartes additionally refuted the credibility of the senses he had struck at the heart of the traditional programme in philosophy.²¹ In agreement with the theological worldview the traditional programme in philosophy explained all the physical changes in the world in terms of a teleological process, by virtue of the Aristotelian substantial forms and accidental qualities. Regardless of their abstract nature, the Aristotelian forms and qualities cannot be comprehended without the use of our senses, because the potential realisation of the substantial form in an individual object essentially pertained to qualities that are sensibly perceived. With his refutation of sensible knowledge Descartes had, thus, undermined the epistemological framework of certain basic components within the Aristotelian physics and metaphysics, and he had thereby attacked the core of the traditional academic tuition in philosophy.²²

¹⁹ Cf. Part 1 and 4 of the *Discours de la méthode*.

²⁰ After the Reformation the Protestants had initially discarded the Aristotelian philosophy (or, in fact, philosophy in general), but after the dispersal of their churches they needed a coherent framework for the education in theology that appeared in the shape of Neo-Scholastic Aristotelianism (cf. Vermij 2002: 160-1; Ruestow 1973: 12).

²¹ Regardless of his attack against Scholastic empiricism, Descartes nevertheless believed that the senses were useful for the physical observation of individual phenomena. During the second half of the seventeenth century Descartes' anti-empiricism was severely challenged by the onset of microscopic research and the rise of the experimental science (cf. Bunge van 2001: 61; Ruler van 1995: 245-7).

²² For this interpretation concerning Descartes' refutation of the Aristotelian substantial forms and accidental qualities cf. Ruler van 1995; id. 2000.

In the *Discours* Descartes had thereupon reduced epistemological certainty to the rational judgement of the mind, and on the metaphysical level he separated the thinking mind from the machine of the body. Descartes exclusively described the body's functions in terms of inanimate and machine-like processes, which mechanical features he also extended to the whole of physical nature. Descartes described the entire physical realm in terms of particles of matter that obeyed the immutable laws of motion, which God had implemented in nature. Hereby he had effectively stripped the corporeal world of its spiritual dimension, and he had also incorporated the physical reality with an element of necessity due to the uniform and static application of the laws nature:

“For it follows of necessity, from the mere fact that he [i.e. God] continues thus to preserve it [i.e. nature], that there must be many changes in its part which cannot, it seems to me, properly be attributed to the action of God (because that action never changes), and which therefore I attribute to nature. The rules by which these changes take place I call the laws of nature.”²³

By means of establishing his mechanical worldview of matter and motion Descartes aimed to obtain a clear view on nature and causality, but he simultaneously refuted the ‘Aristotelian form’ that until then had been the most important principle of explanation for physical change. According to the concept of the Aristotelian form, each object strives to realise the specific nature or form that is inherent to it. This emphasis on the individuality of objects had been perfectly compatible with the *Book of Genesis*.²⁴ By, thus, denying the existence of these unique and individual forms in reality; and by instead reducing the world to particles that obeyed God's three universal and immutable

²³ *The World* Ch.7 in CSM, vol. 1: 92-3; also cf. Part 4 and 5 of the *Discours de la méthode*. This interpretation of Descartes' de-animation of the world is based on Ruler van 2000. According to Descartes, God had established three immutable laws in nature: ‘1. That each thing as far as in it lies, continues always in the same state; and that which is once moved always continues to move; 2. All motion in itself describes a straight line, and things that move in a circle always tend to recede from the centre; 3. A body that comes in contact with another stronger than itself, loses nothing of its movement; if it meets one less strong, it loses as much as it passes over to that body’ (cf. *The World* Ch.7 in CSM, vol. 1: 92-8; also cf. *Principles* II.37-40 in Miller: 59-62).

²⁴ Concerning the creation and preservation of all species after their kind: cf. *Genesis* 1: 11, 21-22, 24-25; also cf. Ruler van 1999: 130; id. 2000: 391, n. 43.

laws of nature, Descartes had in the eyes of certain contemporaries posed a threat to theology with this disenchanted worldview.²⁵

Descartes finally revealed a global account of his natural philosophy with the publication of the *Principia philosophiae* in 1644, in which work he embraced many of the new scientific discoveries from the preceding decades. Throughout the third quarter of the seventeenth century Descartes' mechanical physics would hereupon start to dominate the academic tuition in natural philosophy, which had been previously based on the writings of Aristotle. The teleological explanation of physical change that was provided by the Aristotelian image of nature was, nevertheless, largely inconsistent with Descartes' reductionist explanation of the world as matter in motion. The new Cartesian science, thus, set a challenge to Aristotle's hegemony in a majority of the European universities, whose authority was avidly supported by the churches for the purpose of preserving the alignment between the various philosophical disciplines and the education in theology. To the opposite hereof, Descartes' mechanical worldview posed an inherent threat to the theological doctrines on its own account, since the immutable and universal laws of the Cartesian physics in no way accounted for the truths of Revelation. Hence, Descartes' mechanical worldview would induce frequent conflicts with orthodox theologians and Aristotelian philosophers once it had made its earliest appearance at the universities in the Dutch Republic during the 1640s.²⁶

In hindsight, with the controversies on Cartesianism that were yet to follow, Descartes' statement 'that he had already conquered the Aristotelian philosophy' by the end of

²⁵ Descartes' establishment of an immutable order of nature did, however, not originate from an irreligious sentiment, and in some way Descartes had even made the universe more directly dependent upon God by subjecting it to his immutable laws. However, whereas God's *potentia ordinata* increased in Descartes' new worldview (so as to speak in medieval terms), his *potentia absoluta* decreased and phenomena such as rainbows or comets lost their supernatural meaning (cf. Jorink 2008: 35; Vermij 1999: 113-16). This potential exclusion of miracles in Descartes' mechanical nature (to which Descartes explicitly alluded in Chapter Seven of *The World* (cf. CSM, vol. 1: 97); and his rejection of the animated and individual principle of the Aristotelian form were both important components of the 'Cartesian disenchantment' (cf. Israel 2001: 243-4; Ruler van 1999: 130-2; id. 2000: 381-2, 390-1, 393-5; Vermij 1999: 116).

²⁶ For this discussion concerning the breakthrough of Descartes' mechanical physics and its introduction in Dutch academia cf. Ruestow 1973; Bunge van 2001: 34-64; Verbeek 1992.

1641 seems oversimplified.²⁷ Descartes might have come to realise this himself, when during the subsequent decade he became personally involved in the theological polemics at the universities of Utrecht and Leiden (as will be further discussed in section 2.3.1 of this chapter). In 1647 the Cartesian philosophy was also officially banned from this second university; and when Descartes left the Dutch Republic two years thereafter it was, thus, with a sense of disappointment at the lack of success of his philosophy.²⁸

It was only a few months after his departure from the Dutch Republic that René Descartes died of pneumonia at the court of Christina from Sweden in February 1650. Whereas the Cartesian philosophy had been subjected to such vehement criticism during his lifetime, it would receive a more favourable reception in the Dutch Republic from the 1650s onwards. Even though Descartes' natural philosophy (as well as the other tenets of his philosophical doctrine) would remain at the centre of academic quarrels, Descartes' physics nevertheless managed to obtain a secure position in the Dutch academic tuition throughout the subsequent decades. It was, thus, under the influence of the Cartesian natural philosophy that the occult Aristotelian causes and qualities were removed from the academic tuition in physics, while the mechanical description of the world as matter in motion prevailed.²⁹

2.2.2 The Theological Implications of Descartes' Mechanical Physics

René Descartes had, thus, been an influential propagator of the mechanical worldview, and he was one of the first natural philosophers who introduced the notion of universal laws in seventeenth-century physics. The immutable character of these laws by means of which Descartes described all the physical changes in the world, yet, incorporated the universe with a sense of necessity. The unalterable regularities that could be derived from Descartes' laws of nature threatened God's *potentia absoluta* in the created

²⁷ “[...] mais aussi est-il vrai que j'ai entièrement perdu le destin de réfuter cette Philosophie [d'Aristote]; car je vois qu'elle est si absolument et si clairement détruite, par le seul établissement de la mienne, qu'il n'est pas besoin d'autre réfutation” (*Letter to Mersenne from 22 December 1641* in AT, vol. 3: 470).

²⁸ Cf. Verbeek 1996.

²⁹ Cf. Bunge van 2001: 34-64; Vermij 2002: 156-9.

universe.³⁰ For this reason Descartes had strongly reaffirmed the voluntaristic origin of the laws of nature and all the other eternal truths in God's free will. Whereas Descartes explained the origin of the laws of nature by means of a divine voluntarism, he simultaneously agreed that the knowledge of these laws is, yet, immanently available to the human mind on the basis of our innate ideas. The relation between an immanent rational order versus divine freedom had been a frequent issue of debate during the previous centuries; and it was quite paradoxical for Descartes (as well as other contemporary natural philosophers who succeeded Descartes) to combine the intellectualist epistemology of their physics with a theological voluntarism.³¹

God had, thus, in an axiomatic way implemented His universal laws in nature as well as in the human mind, which rendered these laws of nature the axiomatic status of irreducible mathematical truths. On the basis of the innate presence of these immutable laws in the human mind, the underlying epistemology of Descartes' physics can be described as an intellectual realism. Descartes, yet, strongly maintained that his physical laws of nature had originated in God's free will, which view he firstly expressed in a series of letters to Marin Mersenne (1588-1648) from 1630. In response to a question from Mersenne concerning the theological origin of the laws of nature (which were also called eternal truths by Mersenne), Descartes established that the laws of his physics

³⁰ At the end of *The World* Descartes had explicitly suggested 'that God would no longer conduct miracles in this new world': "In order to eliminate any exception that may prevent this, we shall, if you please, suppose in addition that God will never perform any miracle in the new world, and that the intelligences, or the rational souls, which we might later suppose to be there, will not disrupt in any way the ordinary course of nature" (*The World* Ch.7 in CSM, vol. 1: 97). Certain parts in section 2.2.2 of this dissertation have also appeared in my article 'The Balance between Determinism and Freedom in the Philosophy of René Descartes' that has appeared in the online journal *Sans papier* (cf. Bertrand 2010).

³¹ This same combination between intellectualism and theological voluntarism was, for example, also established in the natural philosophies of Robert Boyle (1627-1697) and Isaac Newton (1643-1727) (cf. Vermij 1999: 116-19). By grounding his mechanical laws of nature on a theological voluntarism, Descartes protected himself against such accusations as had previously been made against his intellectualist predecessors in the medieval intellectualist-voluntarist debate (that will briefly be discussed in section 4.2.2 of this dissertation). By virtue of his theological voluntarism Descartes, thus, defended God's absolute freedom before creation against His subjection to an inherent rational order (as might have been derived from his innate intellectualism). However, in Descartes' mechanical worldview it remained questionable whether God still possessed the power to intervene (i.e. conduct miracles) in the static and course of nature after His creation (cf. Vermij 1999: 114). When during the 1670s the works of Baruch de Spinoza (1633-1677) came to the fore, the deterministic consequences of the Descartes' mechanical worldview were openly demonstrated: Spinoza adopted Descartes' concept of the world machine in order to identify God with nature, and he subjected God to His own physical laws of nature. Besides, Spinoza explicitly employed the laws of nature to discard the belief in miracles, which he also applied to the miracles of Revelation (cf. Ruler van 1995: 318-19; Vermij 1999: 119).

were completely dependent on God's free will.³² In a subsequent letter Descartes explicitly refuted the position that the physical laws of nature, or any other category of eternal truths, could have existed prior to the decree of this divine will. Let alone that any type of eternal truth could have existed, if God did not exist!³³

In the sixth set of replies to his *Meditations* (1641) Descartes firmly repeated his claim, that the physical laws of nature and all the other eternal truths are not based on any kind of pre-existing rational order. To the opposite, all the eternal truths are completely dependent upon God, who had been absolutely free and omnipotent when he implemented them at the start of creation.³⁴ God's freedom and omnipotence did not only pertain to the existence and essence of the mathematical truths of Descartes' physics, or the eternal truths of his metaphysics. The absolute and indeterminate freedom of the divine will had also defined the moral concepts of good and evil, which had only obtained their content because God had wanted them in the way they are:

“Mais, tout au contraire, parce qu'il s'est déterminé à faire les choses qui sont au monde, pour cette raison, comme il est dit en la Genèse, *elles sont très-bonnes*, c'est à dire que la raison de leur bonté dépend de ce qu'il les a ainsi voulu faire. Et il n'est pas besoin de demander en quel genre de cause cette bonté, ni toutes les autres vérités, tant Mathématiques que Métaphysiques, dépendent de Dieu.”³⁵

Descartes, thus, based the eternal truths of his mathematical physics and metaphysics, as well as the moral concepts of good and evil on a complete theological voluntarism. Hereby Descartes had adopted a straightforward voluntaristic stance in the debate

³² “The mathematical truths which you call eternal have been laid down by God and depend on him entirely no less than the rest of his creatures” (*Letter to Mersenne from 15 April 1630* in CSM, vol. 3: 23).

³³ “If men really understood the sense of their words they could never say without blasphemy that the truth of anything is prior to the knowledge which God has of it” (*Letter to Mersenne from 6 May 1630* in CSM, vol. 3: 24); “Il ne faut donc pas dire que *si deus non esset, nihilominus istae veritates essent verae*; car l'existence de Dieu est la première et la plus éternelle de toutes les vérités qui peuvent être, et la seule d'où procèdent toutes les autres” (*Letter to Mersenne from 6 May 1630* in AT, vol. 1: 150).

³⁴ “Hence we should not suppose that the eternal truths ‘depend on the human intellect or on other existing things’; they depend on God alone, who, as the supreme legislator, has ordained them from eternity (‘Sixth Set of Replies’ to the *Meditations* in CSM vol. 2: 291); ‘I mean that there is not even any priority of order, or nature, or of ‘rationally determined reason’ as they call it, such that God's idea of the good impelled him to choose one thing rather than another” (‘Sixth Set of Replies’ to the *Meditations* in CSM vol. 2: 291).

³⁵ ‘Sixth Set of Replies’ to the *Meditations* in AT, vol. 9: 236.

concerning God's relationship to His creation, but in order to safeguard his mathematical physics he simultaneously established the immutability of the laws of nature after the act of creation. Thus, Descartes claimed an absolute freedom for the divine will before His creation, on which level he surpassed his intellectualist predecessors, who had generally considered God's freedom to be bound to certain logical limitations.³⁶ But if one looks at Descartes' image of divine freedom after the creation, it appears that God's absolute power had become restricted to the immutable content of Descartes' laws of nature. Descartes attempted to reconcile God's absolute freedom with the immutability of nature's course, by establishing that the laws of nature had followed from the immutable and static, yet free nature of the divine will:

“On vous dira que si Dieu avoit établi ces vérités, il les pourroit changer comme un Roi fait ses lois; à quoi il faut repondre qu'oui, si sa volonté peut changer. — Mais je les comprends comme éternelles et immuables. — Et moi je juge le même de Dieu. — Mais sa volonté est libre.”³⁷

In his philosophy Descartes, thus, attempted to make it seem as if there was no paradox between his divine voluntarism, on the one hand, and his intellectual realism through which the human mind has full access to these unchangeable laws of nature, on the other hand. The static character of Descartes' mechanical laws of nature, nevertheless, put a serious question mark over the absolute freedom of the divine will after creation, because God could no longer miraculously intervene in the ordinary course of nature after He had freely implemented these eternal and unchangeable laws. Although the deterministic character of Descartes' physics corresponded perfectly well to his *a priori* epistemology, and besides, rendered the Cartesian natural philosophy the status of a certain universal science; it had henceforth become exceedingly difficult for Descartes to convincingly account for the possibility of divine interventions in the natural order.³⁸

³⁶ Most intellectualists believed that God was restricted by the logical principal of non-contradiction (cf. Osler 1994).

³⁷ *Letter to Mersenne from 15 April 1630* in AT, vol. 1: 145-6.

³⁸ Cf. Notes 30 and 31 in the current chapter.

2.3 THE ACADEMIC CONTROVERSIES OVER CARTESIANISM IN THE REPUBLIC

In the preceding section Descartes' refutation of the Aristotelian philosophy was discussed, whose natural philosophy was removed from the academic curriculum during the third quarter of the seventeenth century and replaced by Descartes' worldview of matter in motion. Descartes' rejection of our sensible knowledge and the innate intellectualism of his mechanical physics had put the Aristotelian substantial forms and accidental qualities under pressure, which had been the building blocks of the Aristotelian physics and metaphysics. On account of its teleological and individually animated character the Aristotelian philosophy traditionally served as the didactical underpinning for the education in theology; and Descartes' attack against its contents had, therefore, already in itself been perceived as threat against theology by devout Aristotelian philosophers and theologians. The strong reaction and objections which the Cartesian philosophy generated amongst its opponents at the universities of Utrecht and Leiden during the 1640s and 1650s will be addressed in section 2.3.1.

It was also previously discussed how Descartes' mechanical physics exerted a restrictive impact upon the freedom of the divine will after creation, which the master himself had still tried to conceal by virtue of a (perhaps somewhat insincere) theological voluntarism. Some of Descartes' successors had been less prudent in these matters; and as a result the deterministic implications of his mechanical physics and the theological dangers of his philosophy were more openly perceived at the time of Swartenhengst's dismissal. This chapter will, therefore, be concluded with an account of the final theological-philosophical tensions that were evoked by the Cartesian philosophy at Leiden during the early 1670s, which resulted in the upsurge of the experimental science and a gradual loss of interest in the teachings of the Cartesian philosophy.³⁹

³⁹ For an extensive explanation concerning the aftermath of the Cartesian philosophy and the onset of the experimental science at Leiden under the influence of Burchard de Volder (1643-1709) and Wolfert Senguerdius (1646-1724) during the last quarter of the seventeenth century cf. Wiesenfeldt 2002: 76-98.

2.3.1 *The Early Reactions against Cartesianism at Utrecht and Leiden*

It had, thus, been during the early 1640s when various elements of Descartes' philosophy had entered into the classrooms of the Dutch universities. Unfortunately for Descartes, however, it did not take more than a decade before his philosophy had caused such frequent conflicts, that it was banned from the two universities at which it had firstly been taught. Not only had certain theologians and philosophers started to realise the undermining effects which the Cartesian philosophy held for the established Aristotelian tradition, that also served as the introductory framework to the higher faculties of theology, law, and medicine. More importantly various academics had perceived certain theological dangers in the Cartesian doctrine itself, which in their eyes encouraged atheism by virtue of its epistemological method of doubt; its rejection of the Aristotelian substantial form and the corresponding mechanical reductionism in nature; the unorthodox proofs for the existence of God; the uneven balance between faith and reason in favour of the latter; the rational biblical interpretation that followed from Descartes' natural philosophy; the unlimited amount of freedom that was attributed to the human will; and also the dualistic relationship between the soul and the body.⁴⁰

The first conflicts had commenced at the university of Utrecht during the early 1640s, where Descartes' philosophy was applied in the lectures of the philosopher Henricus Reneri (1593-1639) and the physician Henricus Regius (1598-1697). By the end of the 1630s, however, the staunchly orthodox theologian Gisbertus Voetius (1589-1676) had also been appointed rector at this university (which he combined with an influential career as minister of the Utrecht Church), and he followed the dissemination of Cartesianism at his university with an increasingly hostile eye.⁴¹ In 1639 Regius had already aroused suspicion by criticising the Aristotelian accidental qualities, but the conflict at Utrecht erupted when during a disputation in 1641 Regius defended Copernicanism in combination with the proposition that 'man is an *ens per accidens*'.

⁴⁰ For the prohibition of the Cartesian philosophy at the universities of Utrecht and Leiden cf. Bunge van 2001; Cramer 1889; McGahagan 1976; Verbeek 1992; Wiesenfeldt 2002. Theo Verbeek importantly pointed out that there is a remarkable similarity between the objections that were raised by the Cartesian doctrine and the earlier controversies between the Remonstrants and Counter-Remonstrants (1992: 5-6).

⁴¹ Cf. Bunge van 2001: 34-7; Henry 2002: 92; Israel 1995: 583-4; Israel 2001: 25-7; Ruler van 2003f: 1030-9; Verbeek 1992: 13-19; Verbeek 1996: 1-12; Verbeek 2003: 255-6.

With this latter statement Regius had meant to deny the Aristotelian view of man as a united substance, while instead he proclaimed the Cartesian position of man as an accidental composite between mind and body. Descartes' dualistic metaphysics and his denial of the Aristotelian substantial form was, however, theologically controversial, because it challenged the Christian dogma of the resurrection of the body as well as the doctrine of transubstantiation.⁴² Although neither Copernicanism nor the denial of the Aristotelian substantial forms were in themselves entirely new topics of debate, Voetius' anger was at this time particularly aroused because Regius addressed them from a Cartesian background. Especially after Voetius had read Descartes' *Meditations* in 1641 he would awaken to the danger the Cartesian philosophy posed to the authority of Scripture and Aristotle; and only a few more internal quarrels were required before Cartesianism was officially banned from the university of Utrecht on 17 March 1642.⁴³

Descartes was enraged about this ban on his philosophy, and in the Amsterdam edition of his *Meditations* in 1642 he included his *Lettre à Dinet*, in which he openly ridiculed Voetius' character. Voetius in turn engaged Martin Schoock (1614-69), professor of Philosophy at Groningen, to undertake his defence. In 1643 Schoock published his extremely polemical *Admiranda methodus novae philosophicae Renati Des-cartes*, which offered the first well-founded criticism against the Cartesian philosophy in the Republic. In this work Schoock questioned the method of doubt; he claimed that Cartesianism would lead to atheism because it replaced the traditional proofs for the existence of God with unconventional ones; and he warned that Descartes' refutation of

⁴² Cf. Bunge van 2001: 36; Ruler van 2003f: 1033; Verbeek 1992: 16-17. According to Regius, only the form of the human mind made man into what he is; whereas the body was taken together with the general form of corporeal nature. If the body is no longer essential to human beings, however, it obviously becomes questionable whether there still is a resurrection of the body (which is one of the principal Christian dogmas). Besides, the Aristotelian accidental qualities and substantial forms were required to explain for the doctrine of transubstantiation, which was incongruent with Descartes' physical metaphysics, - even though Descartes unconvincingly tried to offer an explanation in order to satisfy the theological objections against his philosophy (cf. Verbeek 1992: 16-17; Watson 1987: 168-70).

⁴³ Cf. Bunge van 2001: 36-8; Ruler van 2003f: 1033; Verbeek 1992: 13-17. According to Voetius, Copernicanism was firstly theologically controversial because it straightforwardly conflicted with various biblical passages (such as *Joshua* 10: 12-14, *Ecclesiastes* 1: 4-7, and *Psalms* 19: 5-7); and secondly, because it contradicted the Aristotelian natural philosophy (as did Descartes' denial of the substantial forms). Voetius himself resorted to Mosaic physics, which stated that God had created substantial forms in matter; which individual forms neatly corresponded to the creation of separate species according to their kind in the *Book of Genesis* (cf. Bunge van 2001: 37-8).

the knowledge from the senses may lead to scepticism.⁴⁴ Unaware that Voetius was not himself the author of this work Descartes hereupon published his *Epistola ad Voetium* in 1643, in which he once more slandered Voetius' person and hereby nearly caused his own arrest by the Utrecht magistracy. In the end Descartes was still successful in destroying the alliance between Voetius and Schoock on account of a tribunal that was organised at the university of Groningen in 1645, at which Schoock forcefully confessed to having written his *Admiranda methodus* on Voetius' instigation. Despite this small victory against Voetius, Descartes started to feel increasingly threatened in the Dutch Republic; especially after Frederik Henry's decease in 1647, who previously intervened on his behalf. When the Cartesian philosophy was thereupon also prohibited at the university of Leiden in 1647 his uneasiness further increased, and he was thus relieved to accept Queen Christina's invitation to the Swedish court in 1649.⁴⁵

At the university of Leiden Descartes' philosophy and the early quarrels in Utrecht had obviously not passed unnoticed, and a first *Ordo* was issued on 13 August 1642, that restricted the philosophical tuition to the works of Aristotle and his classical interpreters. The curators by this means hoped to keep the conflict away from their own university, but by the time when Descartes published his *Principia philosophiae* in 1644 the philosopher Adriaan Heereboord (1614-61) was already defending Cartesian propositions concerning the *cogito* and the method of doubt. In order to maintain a fair balance at their university, the curators hereupon appointed the conservative Aristotelian Adam Stuart (1591-1654) as professor in physics and metaphysics during this same year. Together with the orthodox theologians Jacobus Trigland (1583-1654) and Jacobus Revius (1586-1658) Stuart soon took up arms against the Cartesian philosophy, which

⁴⁴ In regard of Descartes divine proofs, the ontological proof which he provided in the Fifth Meditation (i.e. existence is a perfection; wherefore God as a supremely perfect Being must exist) had always been treated with suspicion (especially after it was refuted by Thomas Aquinas in the thirteenth century, who maintained that humans cannot completely understand God's essence). One of Swartenhengst's students may have indirectly supported Descartes' ontological proof, when he established that 'God's essence is most simple' in the second corollary to the third disputation on natural law (cf. Appendix: Translations, 183, c.2; SWH NL3: c.2, l. 14). Descartes' divine proof in the Third Meditation (i.e. from our clear and distinct idea of a most perfect Being, God's actual existence is derived) was likewise refuted by Schoock on account of the fact that after the Fall men cannot have a clear and distinct (or innate) idea of God (cf. Bunge van 2001: 39; Verbeek 1992: 22).

⁴⁵ Cf. Bunge van: 2001: 38-41; Israel 1995: 584-7; Ruler van 2003f: 1033-4; Verbeek 1992:19-33; Verbeek 1996: 12-16; Verbeek 2003: 256-8; Vrieze de 1975: 355.

induced a series of heated arguments concerning the method of doubt between them and the philosophers Heereboord and Golius (1596-1667).⁴⁶

In 1647 the theologian Jacobus Revius published a series of five disputations concerning the Cartesian philosophy, from which his concrete theological objections become more apparent. Firstly, Revius condemned the fact that Descartes doubted (or possibly even denied) God's existence, which should be manifest knowledge. Secondly, Revius criticised Descartes' *a priori* divine proof, as we cannot have an image or an idea of God in our mind. Besides, he also disapproved of the fact that Descartes made no use of the *a posteriori* proofs for God's existence, because men can acquire knowledge of God by means of their natural reason. Thirdly, he accused Descartes of Pelagianism, since Descartes attributed an unlimited degree of freedom to the human will (this accusation had similarly been made against the Remonstrants, who emphasised the importance of individual faith at the expense of divine providence). Lastly, Revius criticised the fact that Descartes presented God as a self-caused being in his second divine proof, whereas in Calvinism it is sinful to investigate the causes of God's Being. Revius' disputations were succeeded by an attack from Trigland, who focused on the fact that it is blasphemous to imagine God as a deceiver, which hypothesis was aggravated by Descartes' rejection of our sensible knowledge.⁴⁷

When Descartes heard about the attacks against his philosophy at the university of Leiden, he still tried to defend himself in a letter to the curators from 4 May 1647. As a reaction to this letter the curators decided: 'that neither Descartes' name nor his opinions should any longer be discussed in the theological and philosophical lectures and disputations whether in a positive or in a negative sense'.⁴⁸ Descartes was deeply offended about what he interpreted as a ban on his philosophy, and he demanded an

⁴⁶ Cf. Bunge van 2001: 41-2; Otterspeer 2000: 373-6; Ruestow 1973: 33-45; Verbeek 1992: 34-40; Verbeek 1996: 14; Wiesenfeldt 2002: 42.

⁴⁷ Cf. Goudriaan 2002; Otterspeer 2000: 373-6; McGahagan 1976: 237; Verbeek 1992: 40-6.

⁴⁸ The original resolution from the curators from 20 May 1647 reads as follows: "[...] dat dese vergaderinge heeft goetgevonden te belasten den Professoren ende Regenten van sich te onthouden van den name van des Cartes voortaan te laten drucken off stellen in de Theses, onder haer praesidie te defenderen, ende oock van den selven naem ende opinie mondeling in hare disputatien te gebruycken, maar daarvan te swijgen, ende dat den Subregens, volgens voorrige resolutien ende insinuatien daarvan aen hem gedaen, sich voortaan sal hebben te houden binnen de palen van de Aristotelische Philosophie in dese Academie gerecipieert [...]" (cf. Molhuysen 1918, vol. 3: 5-6).

apology from Revius and Trigland, which he never received. In the meantime the quarrelling at the university continued and intensified, wherefore the curators on 8 February 1648 once more repeated their decision that tuition in philosophy should be confined to the Aristotelian philosophy. Even though the curators monitored the observation of this decree in the ongoing squabbles amongst their staff, it soon became apparent that their measure would be of little avail in halting the onset of the Cartesian philosophy at Leiden. Hence, Descartes' offence about the prohibition of his philosophy, was a rather one-sided interpretation of events, since the curators never intended to relegate his philosophy from their university, but mainly tried to depersonalise the conflict and restore peace.⁴⁹

Thus, despite this restriction Cartesianism henceforth flourished more vigorously than ever at Leiden, which was partly due to the policy of the curators who appointed several pro-Cartesian professors during the 1650s. In the philosophy department the Cartesian Johannes de Raey (1621-1702) and the conservative Henricus Bornius (1617-75) were engaged next to the Cartesian war-horse Adriaan Heereboord. And in the theological faculty the pro-Cartesian Abraham Heidanus (1597-1678) was accompanied by the lenient Johannes Cocceius (1603-69) and Voetius' orthodox pupil Johannes Hoornbeeck (1617-66).⁵⁰ The change of regime in 1650, after the death of William II, also contributed to the larger scope the New Philosophy received within the Dutch universities. Despite the fact that the republican regime under Johan De Witt carried a more liberal orientation, an authoritative decree against the teaching of Cartesian philosophy at Leiden was still issued by the States of Holland on 30 September 1656; -

⁴⁹ Cf. Bunge van 2001: 41-3; McGahagan 1976: 231-43; Otterspeer 2000: 373-9; Schuurman 2003: 813; Verbeek 1992: 46-51, 61-70; Verbeek 1996: 15; Wiesenfeldt 2002: 42-3.

⁵⁰ Johannes Cocceius is mostly known for his covenant theology, in which he distinguished between the covenant that God had made with the Jews and His later covenant with the Christians. This meant that Cocceius employed an allegorical interpretation of certain passages in the *Old Testament*, which were only valid in the context of God's covenant with the Jews. Cocceius' figurative biblical interpretation caused his theology to be associated with Cartesianism during the 1660s, because the Cartesian science also supported a non-literal reading of the Bible and devaluated the importance of miracles. Although Cocceius indeed rejected the use of scholastic methodology in theology, he still believed that theology and philosophy should both have their own field. And at those instance when he discussed certain aspects of the Cartesian philosophy, his conservative interpretation gave occasion for quarrels with the Cartesians (not least with Johannes de Raey). Hence, Cartesianism and Cocceianism did not so much come together because of their content. But rather it was their mutual enemy, Gisbertus Voetius - who wanted to follow the scholastic method and hold philosophy confined to its role of *ancilla theologiae* -, that united the two doctrines (cf. Asselt van 2003: 217-18; Berg van den 1994: 18-19; Bunge van 2001: 53-4; Cramer 1889: 5-6; Israel 1995: 892; Otterspeer 2000: 380-2; Wiesenfeldt 2002: 49-51; Verbeek 1992: 87).

which furthermore stipulated that philosophy and theology should each stay within their respective domain, but that in the case of a contradiction philosophy had to subject herself to the authority of Revelation.⁵¹ T.A. McGahagan's observation that 'the effect of this decree was less unfavourable to the Cartesians than its language would lead one to expect', nevertheless, seems accurate if one looks at some of the subsequent appointments at the university before the onset of the war in 1672.⁵²

The curators were clearly continuing their tolerant policy towards Cartesianism, when in 1658 they employed the Fleming Arnold Geulincx (1624-69) on the instigation of Abraham Heidanus. Arnold Geulincx had been a well-known professor at the university of Leuven, until he was dismissed in January 1658 for obscure reasons (possible explanations are that either he had excessive financial debts, or he violated the rule of celibacy for academic staff, or he had too fervently defended Jansenism).⁵³ Geulincx, who in Leuven already held the reputation of being a Cartesian, was warmly welcomed by Abraham Heidanus, who remained Geulincx's financial and intellectual benefactor and friend throughout his career. It was probably also upon Heidanus' instigation that Geulincx converted to Calvinism shortly after his arrival in Leiden. Strange to say, Geulincx received no support from the side of the Cartesian philosophers Adriaan Heereboord and Johannes de Raey, and it was only after Heereboord's decease when Geulincx was allowed to lecture on logic and metaphysics under David Stuart's (1625-69) supervision from 1662 onwards. The Cartesian expansion in Leiden thereupon experienced a recession with De Raey's departure to the Amsterdam *Atheneum* in 1668, and the subsequent decease of Geulincx and Cocceius in 1669.⁵⁴

⁵¹ For the *Ordre jegens de vermenginge van de Theologie met de Philosophie ende het misbruyck van de vryheyt int filosofieren tot nadeel van de Schrifture* from the States of Holland in 1656 cf. Molhuysen 1918, vol. 3: 55*-58*. For the institutional context at Leiden at the time of the prohibition of the Cartesian philosophy in 1647 cf. McGahagan 1976: 235-43; Verbeek 1992: 46-51, 61-70. For the ecclesiastical criticism and intellectual disputes which Cartesianism generated at the time of the States' Order from 1656 cf. McGahagan 1976: 270-311; Wiesenfeldt 2002: 44-9.

⁵² Cf. McGahagan 1976: 305.

⁵³ Jansenism was an Augustinian doctrine that had been formulated by the Leuven theologian Cornelis Jansenius (1585-1638), but was considered as heretical by the Roman Church because it called into question the Holy Trinity and Incarnation (cf. Moal le 1977: 332-9; Ruler van 2003b: 323-4).

⁵⁴ Cf. Cramer 1898: 78-80; Eekhof 1919: 18-24; Land 1891: 231-4; Otterspeer 2000: 379-84, 428; Ruestow 1973: 45-7; Schuurman 2003: 813; Ruler van 2001: 27; Ruler van 2003f: 1032; Vanpaemel 1998: 261; Wiesenfeldt 2002: 44-9.

It may be concluded that the Cartesian controversy had entered a quieter phase at Leiden and Utrecht between 1656 and 1672, whereas surprisingly the quarrels intensified at the universities of Groningen, Friesland, and Gelderland. At Leiden the curators were still continuing their policy of balance when appointing the hard-line Calvinist Frederik Spanheim (1632-1701) together with the Cartesian Christophorus Wittichius (1625-87) in succession to the deceased Hoornbeeck and Cocceius in 1670/1671. The coup of 1672, however, had severe repercussions upon the curators' eclectic policy and abruptly disturbed their balance in favour of the Cartesians. During the next few years the Cartesian controversy would once more briefly flare up at the university of Leiden, before it was permanently silenced with the dismissal of various Cartesian members of staff and a transfer of focus to the experimental science.⁵⁵

2.3.2 The Second Cartesian Battle at Leiden, 1672-1676

As was previously discussed in Chapter One, within months before William III's coup d'état during the summer of 1672, Johannes Swartenhengst had received the curators' permission to preside over philosophical disputations at the university. In hindsight the timing of Swartenhengst's appointment could hardly have been more unfortunate, because it exactly coincided with the onset of the second Cartesian battle at Leiden, - when the philosophical tuition at the university became temporarily overshadowed by theological polemics over the advancement of Cartesianism. Even though Descartes' philosophy had never stopped being a cause of ongoing quarrels ever since its first introduction in Dutch academia during the 1640s, there had been a notable increase in the anti-Cartesian opposition from 1672 onwards. Currently the Stadholderate in the Dutch Republic had been reinstated, which resulted in an enhanced influence for the orthodox Calvinist faction on the ecclesiastical and political level, and thereby diminished the intellectual freedom at the universities. At Leiden (where the staff was predominantly Cartesian in orientation) these recent developments inevitably generated

⁵⁵ Israel 1995: 894-5; Land 1891: 238; Otterspeer 2000: 431-3; Sluijter 2004: 143; Wiesenfeldt 2002: 51-64. In succession to his visit to the Royal Society in England in 1674, Burchard De Volder (1643-1709) introduced the teaching of experimental physics at the university of Leiden. In January 1675 the curators also provided additional finances for the foundation of a physical theater for conducting physical experiments (cf. Otterspeer 2002: 55-6; Wiesenfeldt 2002: 61-63; Wiesenfeldt 2003: 1042-3).

conflicts, which involved the dismissal of Swartenhengst, Bontekoe, and Heidanus; and the subsequent removal of the Cartesian philosophy from the academic curriculum.⁵⁶

It might seem surprising that the Cartesian philosophy generated so many conflicts at the Dutch universities, since Descartes himself had mostly remained silent on the relation between philosophy, theology, and politics. As T. Verbeek puts it in his work on *Descartes and the Dutch* (1992), however, ‘one could almost call Descartes naïve and careless in dealing with the theological objections that could be voiced against his philosophy’; - which was a luxury that his successors at the Dutch universities could no longer permit themselves.⁵⁷ During the second half of the seventeenth century the institutional challenge that the Cartesian philosophy posed to the Aristotelian hegemony in the theological education (as was previously explained in section 2.2.1) became more stringent: the main problem being that Descartes had provided human reason with a greater authority in relation to theology than had traditionally been the case with scholastic Aristotelianism. Even though Descartes’ successors frequently reverted to his strict separation between philosophy and theology in order to discard the objections of their opponents, this response did not satisfy the theological concern that the truths of Revelation now became evermore openly subjected to the scrutiny of reason. Especially after the publication of Lodewijk Meyer’s (1629-81) *Philosophia Sacrae Scripturae Interpres* in 1666, the Dutch Cartesians were faced with a new challenge.⁵⁸ Whereas the moderate Cartesians interpreted this work as a category mistake from which they tried to dissociate themselves, for the orthodox it confirmed their previous forewarnings.⁵⁹

⁵⁶ During the second half of the seventeenth century the scientific status of Cartesian natural philosophy had already started to crumble, which induced Burchard De Volder to commence his explorations in the direction of the experimental science (cf. Bunge van 2001: 58). For a discussion on the change of atmosphere at the Dutch universities after the political transformation of 1672 cf. Bijl van der: 78-84; Cramer 1889: 100-1, 120-1; Israel 1995: 804-9, 819-20, 889-99; McGahagan 1976: 17-19, 321-4, 331-4; Otterspeer 2002: 51-61; Poelgeest van 1990: 110-15.

⁵⁷ Cf. Verbeek 1992: 76.

⁵⁸ As the title of this work indicates, Meyer explicitly suggested that philosophy should function as the interpreter of Scripture, while he also admitted to the fact that his theological doubts were inspired by Descartes’ philosophical method. When Abraham Heidanus and Johannes Cocceius wrote an official *Advice* for the States of Holland concerning this book, they decided that the method of suspending one’s judgement should not be applied in theological matters (cf. Bunge van 2001: 94-7; Ruler van 1999b: 91).

⁵⁹ Cf. Bunge van 2001: 55, 67-8; Verbeek 1992: 76-7; Wall van der 1994: 132-3, 144-5.

This dynamic according to which academic Cartesians tried to distance themselves from the more radical interpretations (that were mostly voiced outside of the university walls) continued throughout the 1670s. While Lodewijk Meyer had already compromised Descartes' method by applying it to the field of theology, another challenge the Cartesians had to face was the emergence of a radical circle around the philosopher Benedict de Spinoza (1632-77). As was previously discussed in section 2.2.2, Descartes had still tried to conceal the static character of his natural philosophy - and the corresponding implications for the biblical miracles - behind a theological voluntarism. Apparently this approach had not satisfied Descartes' opponents, since his philosophy soon became to be associated with Cocceius' non-literal biblical interpretation during the 1660s.⁶⁰ The anonymous publication of Spinoza's *Theological-Political Treatise* in 1670, however, was yet another story, because this work openly demonstrated the naturalising (and possibly atheistic) consequences that could be deduced from Cartesian philosophy. Although Spinoza likewise established an official separation between philosophy and theology, to his opponents it was obvious that in this book the truths of Revelation became directly dependent upon man's philosophical judgement; that the laws of nature were employed to discard the belief in miracles; and that the highly controversial identification of God with Nature was already previsioned.⁶¹ Although Spinoza mostly gathered his following outside of academia, at Leiden an indirect reference to Spinozism yet seems to have occurred in a conversation with Gaspar Fagel on 28 June 1674; whence De Volder, Heidanus, and Wittichius informed Holland's Grand Pensionary that: 'if anyone ever used Descartes' philosophy to address political matters, the persons should be punished and not the philosophy'.⁶²

Although there seems to have been an awareness of Spinoza's writings at Leiden during the early 1670s, the quarrels between the members of staff at the university do not seem to have evolved around his philosophy directly.⁶³ Rather it had been William III's

⁶⁰ Cf. section 2.2 in this dissertation and note 50.

⁶¹ Cf. Bunge van 2001: 94-122; Israel 1995: 896-9; Israel 2007: viii-xxxiv; Ruler van 1999b: 90-2.

⁶² Cf. Clerc le 1709: 356-9; also cf. Wiesenfeldt 2002: 60-1.

⁶³ An indication of the general awareness in Leiden concerning the content of Spinoza's writings also appeared in Cornelis Bontekoe's posthumous publication of Geulincx's *Ethics* in 1675, which was explicitly aimed against Spinoza's naturalistic line of thought: "Accepting nothing but what could be grasped by the imagination, these disciples of Servet and Vanini went so far as to deny the existence of

appointment as Stadholder during the war of 1672 that had generated a change of atmosphere in the churches and at the schools, which was reinforced by his nomination of several orthodox theologians and philosophers at Leiden (as was discussed in section 1.4.2 of the previous chapter).⁶⁴ The Cartesian members of staff who had already been teaching at the university before the war of 1672, were slow and reluctant to adapt their style to this new environment, and conflicts would soon occur between them and their conservative colleagues. A thorny issue that had already created problems in earlier days, was the fact that the philosophical lecturers frequently displayed a tendency to draw away students from the theological disputations and the public lectures. This had also happened with two of Swartenhengst's students - Simon Hoet and Isaac Hellenius - who were both recipients of bursaries in the theological faculty and in 1672 were reprimanded on account of the fact: 'that in neither one of them there was any sign or hope that they could ever serve the churches or the schools with any benefit or use for the community'.⁶⁵ Although the curators did not carry through with their original decision to send these students away from the university, the impact which the philosophical novelties exerted upon the students in theology remained a consistent source of concern and complaints for the authorities within the Reformed Church.

In section 1.4.2 of the previous chapter the main developments in the second Cartesian controversy at the university of Leiden were already discussed in some detail. One of the major events being Theodoor Craanen's (1620-89) transfer from the philosophical to

God, and to substitute Him with the world itself, saying that all things taken together constituted God, ourselves included (Bontekoe 1675/1696: *4; 1675-1696: [*8])" (cf. Ruler van 1999b: 89).

⁶⁴ At the time of Swartenhengst's appointment he would enter into the company of various pro-Cartesian professors, such as Abraham Heidanus, Christophorus Wittichius, Theodoor Craanen, and Burchard de Volder. From the reinstatement of the Stadholderate in 1672 onwards, however, the curators were only allowed to supplement their crew with conservatively oriented professor, of which Gerardus De Vries, Wilhelm Wilhelmus, Wolfert Senguerdus and Stephanus Le Moine were the examples (cf. Cramer 1889: 26, 100-1; Poelgeest van 1990: 110-12).

⁶⁵ The original quotation in the resolution of the curators reads as follows: "De C[uratoren] en B[urgemeesters] hebben ten haren overstaan door de H[eren] Professoren Spanhemius ende de Volder doen examineren de alumni, die haer althans in 't Collegium Theologicum van haer Ed[ele] Gr[oot] Mo[gendheden] bevinden; ende nae dat de presente bursalen van hare progressen in studio theologico, philosophico et linguae sanctae eenige reekenschap hadden gegeven, soo was ondervonden dat in **Isacus Hillenius, Simon Hoet**, Jeremias Stols, Gosuinus Junius, ende Ottho Schuckingh, respectivelyck op de praesentatie van Haerlem, Medemblicq, Enchuysen, Leyden ende Heusden in 't voors[genoemde] Collegium Theologicum geintroduceert sijnde, **geene de minste apparentie ofte hoope was om oyt off oyt den dienst van de kerken ofte schoolen met eenige stichtinge ofte nuttigheyt van 't gemeen te bereycken**" (Molhuysen 1918, vol. 3: 270).

the medical department and his dismissal as subregent of the State College in 1673.⁶⁶ The Aristotelian philosopher Gerardus de Vries (1648-1705) was thereupon nominated as the new subregent, but the latter was suffering from so many insults that he gladly accepted the offer for a professorship at Utrecht. As appears from Cornelis Bontekoe's *Apology* that was published in 1679, the latter had still been embroiled in a quarrel with De vries on the matter of Cartesian doubt in 1674-75, which had been one of the central themes for debate between Cartesians and anti-Cartesians over the past decades.⁶⁷ Meanwhile the pro-Cartesian Burchard De Volder (1643-1709), who had been teaching on logic and natural philosophy, was transferring his focus to the experimental science from 1674 onwards. By this means De Volder had hoped to benefit the progress of science, while in the meantime leading the philosophical faculty away from the theological controversies over Cartesianism. De Volder's Peripatetic colleague Wolfert Senguerd (1646-1724) followed suit, but the latter still became the victim of various affronts before Swartenhengst's and Bontekoe's final dismissal on 18 December 1675.⁶⁸

⁶⁶ Craanen had currently been the last Cartesian representative in the domain of logic and metaphysics, but his transfer had been no unambiguous undertaking, because Cartesianism thereby also entered into the medical department (cf. Luyendijk-Elshout 1975: 298; Wiesenfeldt 2002: 53).

⁶⁷ In this *Apologie* Cornelis Bontekoe referred to a dispute between him and De Vries in 1674-75, whence the curators had prohibited him to still oppose in any of the disputations, other than in those that were presided over by Swartenhengst (cf. page 57-8). In the *Apologie van den Autheur tegens sijne Lasteraars* Bontekoe - now - defended himself against the rumours that were still circulating at the university: that after this incident the curators had banned him from the city on account of the fact that he had defended the proposition that there is no God. Bontekoe firmly denied this; explaining that he had never applied the Cartesian doubt to God's existence; and besides, that he had hereupon still continued to reside at Leiden for several years. Bontekoe, yet, admitted to the fact that frequent irregularities had occurred during the disputations, for which he mostly passed the blame onto the students: "Maar gelijk ik alleen dit niet en ondernam, maar dat ook andere in de weer waren, en dat verschedene Studenten meenden, dat het lang genoeg met redenen was gehandelt tegens een man, die daar expres was gekomen, om waarheyt en reden te bestryden, soo vielense hem aan met hem uyt te lachen, uyt te stampen, en wanneer hy als of dit was een Martelaar voor de Religie te sijn, stoutelijk en hardnekkelijk daar tegens aangong, selfs aan Justitie klaagde, en sijne vyanden met injurieuse woorden bejegende, soo quam 't daar toe, dat een en andermaal sijn dispuut getroubleert wierd door 't geraas van honden, door schreeuwen, en lachen, en diergelijke disorderen" (Bontekoe 1679: 361; also cf. id.: 359-67).

⁶⁸ On 20 February 1675 Senguerd had been appointed as extraordinary professor in philosophy on account of his educational merits for the university. When the curators had thereupon invited Senguerd in order to explain himself concerning the insults that he had been suffering during his lectures, Senguerd placed the main share of the blame with the students 'Cocq van Delwijnen and De Mey' (cf. Cramer 1889: 98). The former one of these students - Johannes de Cock à Delwijnen - happened to defend the fifth disputation *On the World* under Swartenhengst's supervision in October 1675 (cf. SWH DM5: title page). Another one of Swartenhengst's students who had been causing problems at the university shortly before his dismissal was Bernardus Nieuwentijt, who had been arrested for chasing the staff in a tavern with his rapier on the exact evening before Swartenhengst's dismissal (cf. Vermij 1991: 8).

Not the least cause of these insults against the peripatetic philosophers was the agitation the Cartesian lecturers Johannes Swartenhengst and Cornelis Bontekoe were arousing among the students. On 18 December 1675 both were dismissed on account of their immoderate defence of Cartesianism and their aggressive attitude towards Aristotelianism. With Swartenhengst's and Bontekoe's dismissal, Arnold Geulincx's last pupils had disappeared from the University of Leiden, and the Geulincxian philosophy quickly died out in the Dutch Republic.⁶⁹ Encouraged by the recent demands from the classes of Walcheren and Goes, the curators had declared Swartenhengst's continuous violation of the *Order* from 1656 and his mocking insults against the Peripatetic philosophy to be sufficient reason for dismissal, which resolution was officially pencilled down on 18 December 1675. On 7 January 1676 the curators issued a resolution with 23 Cartesian and Cocceian propositions that were henceforth prohibited at the university of Leiden. In reply to this list of propositions that had been drawn up by Hulsius and Spanheim; Heidanus, Wittichius, and De Volder published their *Consideratiën over eenige saecken onlanghs voorgevallen in de universiteyt binnen Leyden*. This treatise surprisingly led to Heidanus' dismissal, whence the theological faculty moved towards the orthodox standpoint, which after 1689 it espoused entirely.⁷⁰

In the subsequent discussion concerning the content of Swartenhengst's disputations in Chapter Three and Four, it will appear how he had largely followed Heidanus' approach in that he refrained from mingling theological and philosophical matters. If one looks at the list of prohibited positions from 1676 it seems as if the Cartesian outlook in general, - and more specifically its more radical consequences in relation to biblical interpretation -, were under severe pressure at Leiden during these days. On a few instances Swartenhengst defended similar positions and views as the ones that appear in

⁶⁹ The association between Geulincxianism and Spinozism contributed to the quick downfall of Geulincx's philosophy in the Dutch Republic (cf. Israel 2001: 434-5, 551; Thijssen-Schoute 1954: 178-80; Ruler van 1999b: 92-5; id. 2003b: 328).

⁷⁰ Cf. Cramer 1889: 102-19; McGahagan 1976: 344-52; Otterspeer 2002: 58-61; Poelgeest 1990: 114. For the content of these propositions in the resolution of the curators from 7 January 1676 cf. Cramer 1889: 102-3; McGahagan 1976: 344-5. The first seven propositions supposedly referred to Cocceius' covenant theology, whereas the latter propositions can mostly be related to Cartesian philosophy. In the *Consideratiën over eenige saecken onlanghs voorgevallen in de universiteyt binnen Leyden*, however, Heidanus fervently tried to clear the name of his deceased colleague Cocceius, who had now become associated with views that had never been taught at the university during his days. Besides, he also tried to demonstrate how certain positions had been falsely attributed to Descartes, or how these were based on a misreading of the latter's philosophy (cf. Cramer 1889: 102-19; McGahagan 1976: 344-52).

the resolution from 1676.⁷¹ Importantly, however, one may easily suspect that the oral defences of Swartenhengst's disputations will have been more revealing and controversial in their content than the material appearing on paper. The fact that the students in theology were also confronted with these philosophical novelties (which they brought back home with them once they started serving their congregations) led to many ecclesiastical protests. Now that the philosophical faculty was finally steering away from the theological controversies over Cartesianism by virtue of the onset of the experimental science, such combative Cartesians as Swartenhengst and Bontekoe no longer fitted in with the university's new course. In the following two chapters the content of Swartenhengst's disputations is discussed, which mainly focuses on his views on metaphysics, occasionalism, and natural law.

⁷¹ The following theses also reoccurred in Swartenhengst's disputations: Thesis 17 Nothing constitutes human nature beyond thought (cf. SWH 1670 th.4; id. DM5 c.8; id. PP1675 th.9-10, th.12). Thesis 20 We have a faculty by which we might take care never to err; error really being only in the will (cf. SWH S&E2 th.5, th.7-9). Thesis 22 Men have an adequate idea of God (cf. SWH DM5 c.12; for the translated theses from the resolution of 1676 cf. McGahagan 1976: 344-5).

“Hier zijn de dinghen stoff van bollekens, die werren,
En maken voght en droogh, en schiepen sonn en sterren,
Daer is 't een wack're droom en soo genoegh geseidt,
Dat yeder schepsel werckt naer syn' verborgentheid.”

CONSTANTIJN HUYGENS, 'Ooghen-Troost' (1647) in: Worp, J.A. (1894),
De gedichten van Constantijn Huygens: Deel 4 1644-1652: 116.

CHAPTER 3

DESCARTES, GEULINCX, AND SWARTENHENGST ON METAPHYSICS

In Chapter Two it was already described how Descartes' philosophical programme had caused frequent disputes and debates in the Dutch academic world from the 1640s onwards. One of the most important reasons for these upheavals had been Descartes' rejection of the Aristotelian school philosophy, which stood in a symbiotic relation with the pedagogic structure and the Reformed orientation at the Dutch universities. As will be further clarified in the current chapter, Descartes' philosophical doctrine particularly exposed an undermining threat against the established Aristotelian tradition on account of its anti-empiricist and reductionist epistemology, which supported his mechanical concept of causality on the level of the physical world. In the first section the general outline of Descartes' metaphysical project will be explained in more detail, as well as the way in which it related to his natural philosophical and epistemological views. Despite certain inconsistencies, all three domains of metaphysics, epistemology, and natural philosophy were essentially intertwined in Descartes' philosophy.¹

In the continuation of section 3.1 it will then be discussed how Descartes explained the interaction between the mind and the body through the pineal gland, which allowed the soul to effectuate movements in the body and vice versa for the body to generate sensations and passions in the soul. Despite the great detail in Descartes' anatomical description concerning this interaction in a human being, his explanation by virtue of the pineal gland was perceived as a *deus ex machina* solution by most of his contemporaries. Because Descartes in the end could not truly clarify the interaction between these two essentially heterogeneous substances (i.e. the purely thinking mind and the purely extensional body), some of his successors - the so-called occasionalists - introduced God as the genuine causal agent behind this interaction between mind and body. Apart from perceiving the body as an occasional cause in regard to the mind (i.e. God, thus, being the true cause for the sensations and passions in our mind), most

¹ It is interesting to note that Descartes firstly focused on his reductionist epistemology and natural philosophy in the *Rules* and *The World*; and only later he elaborately discussed upon the domain of metaphysics in the *Discourse* from 1637 and the *Meditations* from 1641.

occasionalists likewise perceived the body as an occasional cause on the level of its physical interaction with other bodies. Although this latter view closely corresponded to Descartes' own writings - who in accordance with the theological tradition postulated God as the primary cause of motion -, the occasionalists yet differed from the former in that they no longer attributed any causal efficacy to the body on a secondary level.

At the end of section 3.1 it will then be explained how Swartenhengst's teacher, Arnold Geulincx, similarly deprived the body of its genuine causal force on account of his epistemic axiom: 'that what you do not know how to do, is not your action'. As yet, Geulincx still saw the body and its motions as a necessary instrument for God to generate thoughts in the human mind. Surprisingly, Geulincx also considered it to be impossible for the human mind to have any effect on the body or the external world, on the basis of the assumption that the mind does not actually know how it completes such basic actions as lifting up our arm or moving our tongue. God, thus, became the only genuine causal force in Geulincx's metaphysics, which made the mental and corporeal realm more directly dependent upon His will than had been the case in Descartes' writings. Because Geulincx's occasionalistic metaphysics more closely associated the human mind with the divine mind in opposition to the extensional realm, his philosophy was later perceived as a step-in-between Descartes' tri-partition and Spinoza's monism.²

In section 3.2 it will thereupon be discussed how Swartenhengst represented Geulincx's occasionalistic metaphysics in his own disputations. Whereas Swartenhengst had also placed the human and the divine mind together in opposition to the corporeal world in a miscellaneous disputation from 1675; in the other disputations he only discussed Geulincx's body-mind occasionalism and he did not mention his mind-body occasionalism. A few of the statements in the corollaries of Swartenhengst's disputations, as yet, indirectly confirm Geulincx's view that the human will has no

² Descartes established a tri-partition of God, the human mind, and the body; whereas Geulincx established the human mind as a mode of the universal Mind in opposition to the extended universe of which the human body is a part. Besides, apart from the individual, divisible, and finite bodies Geulincx also identified an infinitely extended and indivisible Body-as-such in his *Metaphysica vera*. Without making the ultimate step of accepting the body as part of the infinite divine substance, Geulincx's Cartesianism approached Spinoza's monism of the eternal substance and its temporal modes (cf. Ruler van 2003b: 326-7; Thijssen-Schoute 1954: 180).

effect on the body or the external world, but these are so scarce in number that Swartenhengst cannot be identified as a mind-body occasionalist on this basis.³

3.1 FROM DESCARTES' DUALISM TO GEULINCX'S OCCASIONALISM

At the start of the modern period the content of academic Philosophy was still largely determined by the writings of Aristotle, whose views had been made compatible with Christianity from the thirteenth century onwards. The philosophical discipline that traditionally concerned the perfection of knowledge was logic, which in the whole of Europe had been based on Aristotle's *Organon* from 200AD onwards. Changes in the content and structure of the logical domain gradually occurred under the influence of late sixteenth-century Humanism. Hence, Aristotelian logic gradually lost its Scholastic role of the science that generated new knowledge, and instead it became a merely instrumental art for the direction and organisation of the mind during the first decades of the seventeenth century. For the purpose of guiding our mind logic started to share its role with Mathematics; and the deductive structure of this latter discipline subsequently became to be adopted as an epistemological model by various modern rationalists.

Amongst the modern philosophers who made their contribution to the development of the new logic were René Descartes (1596-1650), John Locke (1632-1704), Antoine Arnauld (1612-1694), and Nicolas Malebranche (1638-1715), whose views were generally characterised by the value they attributed to the role that is played by our mental faculties during the acquisition of knowledge. Their growing confidence in the natural capacity of the human intellect discarded the necessity for the formal rules of Aristotelian logic; and instead the laws of the mental faculty themselves became the

³ "All people and all things necessarily obey God. On this account the proposition to obey Him is in itself useless, but the proposition to obey His law is good" (Appendix: Translations, 163, c.20; also cf. SWH 1670: c.20, ll. 27-8); "Whatever happens, happens necessarily" (Appendix: Translations, 183, c.5; also cf. id. NL3: c.5, l. 23; also cf. id. DM1: c.9, l. 11); "We can do nothing, if God would not want this" (Appendix: Translations, 210, c.8; also cf. id. DM1: c.8, l. 10).

dominant factors in the field of knowledge and error.⁴ The strong emphasis that the modern tradition placed on the role of our mental faculties and the employment of a method was, thus, also represented in Descartes' writings. As early as the *Rules* the latter established his strong confidence in the capacity of the human intellect (as long as this was guided by an accurate method); and he discarded the need for the use of the artificial structures of Aristotelian logic for finding knowledge. Thus, rather than searching for knowledge by means of these Scholastic formalities, Descartes instead suggested that we exclusively employ our light of reason in order to discover truth.⁵

3.1.1 Descartes' Metaphysical Project

The reductionist epistemology on which Descartes grounded his natural philosophy had firstly been provisioned in the mathematical method that was laid out in his *Rules for the Direction of the Mind*. In this treatise (that Descartes wrote during the late 1620s) he had advanced the notion of a universal wisdom that pertained to all the sciences and could be acquired by means of a single method.⁶ It had been at the time when Descartes had started to live in the Dutch Republic in 1629, that he started with the development of his mechanical physics, of which he introduced the global epistemological and theological outlines in his *Traité du monde et de la lumière* (or in Latin *De mundo*; i.e. *The World*). It had only been with the publication of the *Discours de la méthode* in 1637 that Descartes disclosed the less controversial parts of his natural philosophy to a larger

⁴ Although the Aristotelian tradition had reached a stage of decline by the middle of the seventeenth century, its influence within the logical domain never completely extinguished. During the early modern period it was, therefore, not only the divide between empiricists and rationalists that was of importance, but also the distinction between Aristotelians and logicians of ideas (whether of a rational or empirical orientation). Obviously there were strong points of debate between rationalists and empiricists within the epistemological domain, which is for example shown by the correspondence between Gassendi and Descartes in continuation of the publication of the latter's *Meditations* (cf. Grene 1985: 139-68; Schuurman 2004: 165-6).

⁵ "As for other mental operations which dialectic claims to direct with the help of those already mentioned, they are of no use here, or rather should be reckoned a positive hindrance, for nothing can be added to the clear light of reason which does not in some way dim it" (*Rule 4* in CSM, vol. 1: 16).

⁶ Cf. Cottingham 1993: 203, 212. Descartes wrote his *Regulae ad directionem ingenii* (i.e. *Rules*) around 1628, but he considered it a failed project and the treatise was never officially published during his lifetime. The first Dutch translation appeared in 1684, and the Latin edition was published in 1701. Manuscript copies did, nevertheless, circulate in the Dutch Republic and France prior to these dates (Leibniz, for example, had been able to purchase a copy in Amsterdam in 1670; cf. CSM vol. 1: 7; Schuurman 2004: 17, n. 64).

audience in three essays on optics, geometry, and meteorology. In the *Introduction on the Method* that accompanied these essays Descartes made his first elaborate enquiry into the domain of metaphysics, but only after he had firstly established a solid epistemological method on which he could ground the first truths of his philosophy.⁷ Although Descartes' method in the *Discourse* deviated slightly from its earlier depiction in the *Rules*, the sciences of arithmetic and geometry yet continued to perform their demonstrative function in his search for certain knowledge.⁸

After elaborating his epistemological method and a provisional moral for the practical life, Descartes thereupon established the independent existence of the rational soul and God as the first indubitable truths of his metaphysics, which line of argument was likewise followed in his *Méditations métaphysiques* from 1641.⁹ Especially in the *Meditations*, however, the disclosure of these truths was preceded by a radical refutation of all his previously held opinions, which were rejected on the basis of two fundamental grounds for doubt: firstly, because I can never tell with absolute certainty whether I am awake or asleep; and secondly, because there might be a *malin génie* who allows us to be deceived even in the simplest demonstrations of the geometers.¹⁰ After Descartes had in this way liberated himself from the knowledge of the senses as well as the most basic of his preconceived opinions, he yet could not deny the irrefutable awareness of himself as a thinking substance. From this first indubitable certainty of the *cogito* Descartes

⁷ Descartes seems to have written this metaphysical introduction on a fairly short notice, which becomes apparent from the fact that there were few direct links between the *Essays* and the *Introduction on the Method* (cf. Garber 1992: 46; Jorink 2008: 30-1).

⁸ Already in the *Rules* Descartes had indicated that the sciences of arithmetic and geometry should perform an exemplary function for our study of the other sciences: "De tout cela on doit conclure, non pas, en vérité, qu'il ne faut apprendre que l'arithmétique et la géométrie, mais seulement que ceux qui cherchent le droit chemin de la vérité ne doivent s'occuper d'aucun objet, dont ils ne puissent avoir une certitude égale à celle des démonstrations de l'arithmétique et de la géométrie" (Bridoux, *Règle* II: 42). By choosing the rules of geometry and arithmetic as his epistemological guidelines, Descartes objected to the Thomistic tradition that considered mathematics as an inferior science in comparison to natural philosophy (cf. Ariew 1999: 191, n. 10).

⁹ These primary truths of Descartes' metaphysics had already appeared in the *Rules*, where Descartes promptly established the following propositions: "Je suis, donc Dieu existe; et de même, je comprends, donc j'ai un esprit distinct du corps" (Bridoux, *Règle* XII: 83).

¹⁰ In the *Discourse* Descartes had employed a similar method, but in this work he had not yet introduced his *malin génie* (cf. *Discourse* IV).

furthermore concluded that the mind exists independently from the body, of which the actual existence was still to be determined in the continuation of his *Meditations*.¹¹

Despite the uncertainty of the actual existence of the human body and the external world, Descartes had thus already been able to illustrate the essentially different nature of the mind and the body at this stage. With his example of the changeable properties of a piece of wax, Descartes thereupon also demonstrated how we better understand this external object by virtue of our intellect rather than by virtue of the senses and the imagination (i.e. it is only by virtue of our intellect that we can still identify a piece of wax as the same object after its sensible features have been altered due to a change in temperature). On this account Descartes concluded that the mind is not only better known than the body, but that it is also better capable of understanding the external world than are the senses and the imagination.¹² The attribute of the mind Descartes, therefore, placed in thought purely. And from this clear and distinct idea of himself as an exclusively thinking substance, he thereupon derived as a general rule: ‘that all the ideas which we perceive clearly and distinctly are true’.¹³

In continuation of this fundamental epistemological criterion Descartes subsequently continued to demonstrate God’s existence, which commenced from the fact that he clearly possessed the idea of a most perfect Being. An important aspect of Descartes’

¹¹ “Un autre est de penser; et je trouve ici que la pensée est un attribut qui m’appartient: elle seule ne peut être détachée de moi. *Je suis, j’existe*: cela est certain [...]” (Bridoux, *Méditations* II: 277). In the first and second Meditation Descartes casted into doubt such primary truths, as whether he possessed a body; whether an external world exists; or whether two plus three equals five (cf. *Meditations* I-II).

¹² “Mais enfin me voici insensiblement revenu où je voulais; car, puisque c’est une chose qui m’est à présent connue, qu’à proprement parler nous ne concevons les corps que par la faculté d’entendre qui est en nous, et non point par l’imagination ni par les sens, et que nous ne les connaissons pas de ce que nous les voyons, ou que nous les touchons, mais seulement de ce que nous les concevons par la pensée, je connais évidemment qu’il n’y a rien qui me soit plus facile à connaître que mon esprit” (Bridoux, *Méditations* II: 283; also cf. id. 279-283). It had in fact been as early as the *Rules* when Descartes established that all knowledge commences with the intellect, although he had currently still allowed for the possibility that the intellect could be hindered but *also* helped by the senses, the imagination, and the memory (cf. Bridoux, *Règle* 8: 61-7). From the *Discourse* onwards Descartes became more negative on the epistemological value of these latter three faculties, although he never fully discarded their use for the successful union of the mind with the body (cf. Cottingham 1993: 218, 221).

¹³ “Et partant il me semble que déjà je puis établir pour règle générale, que toutes les choses que nous concevons fort clairement et fort distinctement, sont toutes vraies” (Bridoux, *Méditations* III: 284; also cf. Bridoux, *Discours*: 148). Thought in human beings was a very broadly defined concept for Descartes, which included our capacity to imagine and sense as a mental event. Animals could likewise sense and memorise on purely mechanical grounds, but they are completely unconscious of these sensations and feelings because they lack the faculty of thought (cf. Garber 1992: 112-14).

divine proof in the Third Meditation is the underlying causal premises on which it was based, which (regardless of Descartes' original intention to refute all traditional knowledge) were clearly scholastic in origin.¹⁴ The scholastic character of Descartes' divine proof in the Third Meditation most clearly appears from the following causal assumptions: firstly, that something more perfect cannot follow from anything less perfect, let alone from nothing; and secondly, that there needs to be as much reality in the cause as there is in the effect. Descartes hereupon made a highly debatable move by extending the application of this second premise to the mental realm, in the sense that 'each idea must originate from a cause that possesses at least as much actual perfection in reality, as is objectively represented in the idea'. Since it is clear that we can by no means derive the idea of the divine perfections from our own finite nature on account of the first premise, Descartes thereupon concluded that such a most perfect Being, namely God, therefore also has to exist.¹⁵

In continuation of his divine proof, Descartes admitted to somewhat of a catch-22 in both the *Discourse* and the *Meditations*, when he claimed that it is only *because* I know that such a perfect God exists, that I can be assured of the truth of my clear and distinct ideas. Despite of this circularity in the chain of reasoning by which Descartes tried to guarantee the epistemological validity of his metaphysical project, he had yet succeeded at posing a forceful challenge to scholastic empiricism by building his ontology on purely rational grounds.¹⁶ When reiterating the repressed content of his *Le Monde* and *Traité de l'homme* in the fifth part of the *Discours*, Descartes furthermore indicated that he had availed himself of the same principles in the domain of natural philosophy, 'which had provided him with truths no less certain than the demonstrations of the

¹⁴ The scholastic concept of causality was generally understood in terms of a property transmission, which presupposed a certain similarity between the cause and its effects, and according to which the cause also had to be ontologically superior to the effect (cf. Clatterbaugh 1999: 13-14, 19-20, 27-31; Cottingham 1993: 211, 223; Gilson 1967: 202).

¹⁵ In the Third Meditation Descartes provided an additional argument in support of God's existence by making the moment-to-moment conservation of our existence dependent upon His sustaining power. Another argument in support of God's existence appeared in the Fifth Meditation, where Descartes proclaimed that we cannot think of God's essence without thinking of His existence. Already in the fourth part of the *Discourse* Descartes had acknowledged that, whereas the fact that we have a clear and distinct idea of a triangle entails the truth but not the existence of the triangle, this analogy cannot be applied to our idea of a most perfect Being (cf. Bridoux, *Discours* IV: 150).

¹⁶ For a brief explanation concerning the 'Cartesian circle' in a nutshell cf. Cottingham 1993: 212.

geometers'.¹⁷ With these truths Descartes meant to refer to the three universal laws of nature, which had been implemented in both the universe and the human mind by God's free will at the start of creation. By postulating the innate presence of such general laws in both nature and the human mind, Descartes tried to bridge the metaphysical and epistemological dichotomy that he had previously established between the human mind versus the body and the external world.¹⁸

In the *Discours* God had, thus, not only appeared as the epistemological guarantor of our clear and distinct ideas on the spiritual level, but He should also be held accountable for the truth of the innate ideas that pertained to the external world. Whereas in the *Meditations* Descartes did not engage in the subject of these physical laws of nature, he as yet also felt the need to rule out the possibility that God could be a deceiver, before he was willing to make any further inferences concerning the corporeal realm. At the end of the Third Meditation Descartes would exclude this possibility on account of the fact that deceit is dependent on an imperfection, whereas my idea of God tells me that He is a most perfect Being. In the continuation of his *Meditations* Descartes thereupon employed God's non-deceiving nature in order to demonstrate the assured existence of the external world.¹⁹

Descartes' proof for the existence of the material world was moreover closely related to his previously established mind-body dualism, since his argument started from the fact that the mind receives certain impressions of external objects, which certainly cannot be derived from the exclusively thinking nature of the mind itself.²⁰ To the opposite, our

¹⁷ "Je suis toujours demeuré ferme en la résolution que j'avais prise de ne supposer aucun autre principe que celui dont je viens de me servir pour démontrer l'existence de Dieu et de l'âme, et de ne recevoir aucune chose pour vraie qui ne me semblât plus claire et plus certaine que n'avaient fait auparavant les démonstrations des géomètres" (Bridoux, *Discours* V: 153).

¹⁸ As early as the *Rules* Descartes had repeatedly used the term 'innate', while he spoke of certain self-evident simple natures that could be directly intuited by the human mind without falsity (cf. *Rules* 4, 6, 8, 12; also cf. Cottingham 1993: 204). Various contemporaries also employed the term 'idea' within an epistemological context, but Descartes himself may largely be held responsible for its initial re-introduction in the seventeenth-century philosophical vocabulary (cf. Ariew: 1999: 58; Schuurman 2004: 16).

¹⁹ On the basis of Descartes' previously discussed divine proof from the Third Meditation, it was concluded that God cannot be a deceiver because deceit is dependent on an imperfection, whereas God is most perfect (cf. Bridoux, *Méditations* III: 299-300; also cf. Garber 1992: 71-3).

²⁰ "Et parce que les idées que je recevais par les sens étaient beaucoup plus vives, plus expresses, et même à leur façon plus distinctes, qu'aucune de celles que je pouvais feindre de moi-même en méditant, ou bien

ideas of these sensible impressions of corporeal objects should be derived from the actual existences of such extensional substances in reality, or at least from a substance that eminently possesses the extensional nature of the body, which can only be God.²¹ But since humans are naturally inclined to attribute their sensible impressions to external objects; and because God is no deceiver; - Descartes concluded that the corporeal world and the human body must therefore also necessarily exist. He, nevertheless, added hereto that the corporeal objects might not exist in the exact same way as we perceive them, which is related to the fact that the necessity to act in life does not always leave us sufficient time to investigate the nature of corporeal objects.²²

In his proof for the existence of the material world Descartes had, thus, once more established the mind and the body as essentially different substances, but at the same time he also believed that they were closely united in a living human being. Both in the *Discours* and in the Sixth Meditation Descartes indicated that it was impossible to conceive how the mind could otherwise enjoy the sensation of movements, feelings, and appetites.²³ In his earlier *Traité de l'homme* and his later *Passions de l'âme* Descartes attempted to explain the anatomical interaction between the mind and the body in more detail, but in the current Meditation he was mainly concerned with the epistemological use of the senses for the mind-body composite. Although Descartes admitted to the fact that he could not explain the exact relation between the rumbling in the stomach and the subsequent desire to grab some food, the use of senses was apparently confined to the fact they inform the mind on what is advantageous and disadvantageous to its composite. Because the sensible impressions are merely clear enough for this purpose only, we are taught by nature not to draw any further conclusions from the our sensible

que je trouvais imprimées en ma mémoire, il semblait qu'elles ne pouvaient procéder de mon esprit; de façon qu'il était nécessaire qu'elles fussent causées en moi par quelques autres choses" (Bridoux, *Méditations* VI: 321).

²¹ Here Descartes' argument again included the scholastic premise that each idea originates from a cause that possesses the same degree of reality as this idea on either an actual or eminent level (cf. Bridoux, *Méditations* VI: 324-5).

²² "Mais parce que la nécessité des affaires nous oblige souvent à nous déterminer, avant que nous ayons eu le loisir de les examiner si soigneusement, il faut avouer que la vie de l'homme est sujette à faillir fort souvent dans les choses particulières; et enfin il faut reconnaître l'infirmité et la faiblesse de notre nature" (Bridoux, *Méditations* VI: 334).

²³ "La nature m'enseigne aussi par ces sentiments de douleur, de faim, de soif, etc., que je ne suis pas seulement logé dans mon corps, ainsi qu'un pilote en son navire, mais, outre cela, que je lui suis conjoint très étroitement et tellement confondu et mêlé, que je compose comme un seul tout avec lui" (Bridoux, *Méditations* VI: 326).

impressions without prior examination by reason. If we accurately employ the senses in this way, however, they will lead to the preservation of a healthy human being as long as the body is not suffering from any irregular illnesses.²⁴

3.1.2 Problems in Descartes' Theory of Causation

What I hope to have demonstrated in the previous section is that Descartes' reductionist epistemology, his metaphysical dualism, and his divine guarantee for the epistemological veracity of our innate ideas (both on the metaphysical and corporeal level); - were all closely interconnected in his metaphysical project. It seems to have been *exactly* by virtue of these innate ideas that Descartes bridged the epistemological gap between the mental and the corporeal domain. For the mind can get veridical access to the external world by virtue of the innate laws that God had implanted in it, as well as through the mathematical abstractions of extensional substances that corresponded with his overall reductionist epistemology.²⁵ At the end of the previous section it was also pointed out, that despite the initial distinction which Descartes established between the mind and the body, he simultaneously considered them to be closely united in mankind. While summarising the content of his repressed *Traité de l'homme* in the fifth part of the *Discourse*, Descartes had firstly divulged his anatomical explanation for the interaction between the mind and the body on account of his theory on the pineal gland. Although Descartes could convince hardly any of his contemporaries of the exceptional functions that he attributed to this tiny device, he still held fast to his original explanation in his final work *Les passions de l'âme* from 1649.²⁶

²⁴ “Enfin je remarque que, puisque de tous les mouvements qui se font dans la partie du cerveau dont l'esprit reçoit immédiatement l'impression, chacun ne cause qu'un certain sentiment, on ne peut rien en cela souhaiter ni imaginer de mieux, sinon que ce mouvement fasse ressentir à l'esprit, entre tous les sentiments qu'il est capable de causer, celui qui est le plus propre et le plus ordinairement utile à la conservation du corps humain, lorsqu'il est en pleine santé” (Bridoux, *Méditations* VI: 332).

²⁵ “[M]ais aussi que j'ai remarqué certaines lois que Dieu a tellement établies en la nature, et dont il a imprimé de telles notions en nos âmes, qu'après y avoir fait assez de réflexion nous ne saurions douter qu'elles ne soient exactement observées en tout ce qui est ou ce qui se fait dans le monde” (Bridoux, *Discours* V: 153-4).

²⁶ “[T]he part of the body in which the soul exercises its functions immediately is in nowise the heart, nor the whole of the brain, but merely the most inward of all its parts, to wit, a certain very small gland [...] (*Passions* I: 31; also cf. *Treatise on Man* in CSM, vol. 1: 100). In some of Swartenhengst's disputations the idea that the mind and the body are connected through the pineal gland was also expressed: cf. SWH NL2: c.5; id. S&E1: c.2; id. PP1675: th.16).

In the *Passions of the Soul* Descartes had commenced with an explanation of the machinery of the human body, in which regard he indicated that those experiences that can likewise be observed in non-human bodies belong to the body, while all the others originate from the soul.²⁷ According to Descartes, the first corporeal principle for the motion in our anatomical machinery starts from the heat in the heart, but in human beings our actions can also be instigated by the rational soul.²⁸ Apart from the soul, however, an additional cause for action in human beings is the movements in the sense organs and the animal spirits, which can induce the muscles to contract without the intervention of the soul, as becomes apparent from our reflex to blink.²⁹ When the external senses or the internal appetites excite movements in the nerves and the animal spirits, these can nevertheless also pass on from the brain into the pineal gland, where they cause ‘these diverse perceptions to become evident to the human soul’. Similarly the animal spirits might generate passions in the soul, which differ from the other perceptions in that they solely relate to the soul itself and are therefore best termed emotions.³⁰ In the continuation of his *Passions* Descartes furthermore tried to explain the operation of the pineal gland, which allowed for the corporeal animal spirits to generate perceptions in the soul, as well as for the soul to activate motion in the body:

“Let us here add that the small gland which is the main seat of the soul is so suspended between the cavities which contain the spirits that it can be moved by them in as many ways as there are diversities in the object, but that it may also be moved in diverse ways by the soul [...].”³¹

²⁷ Cf. *Passions* I: 3-4, 14. In correspondence with his earlier writings Descartes claimed that only the act of thinking belongs to the soul, which Descartes divided into actions and passions. The actions of the soul consist in our desires that directly proceed from the soul. The passions of the soul consist in ‘all those kinds of perceptions and forms of knowledge that are found in us’, which we frequently receive from the things that are represented by them (cf. *Passions* I: 4).

²⁸ “For in addition to the action of the soul which is truly in our case one of these causes, as I shall subsequently explain, there are two others which depend only on the body [...].” (*Passions* I: 12; also cf. id. I: 8).

²⁹ Cf. *Passions* I: 12, 13, 16. The fact that the machinery of the body is capable of such things, also explains how animals can perform such movements as breathing, eating, walking, sensing, and memorising without being in the possession of a rational soul (cf. *Passions* I: 16; also cf. *Treatise on Man* in CSM, vol. 1: 108).

³⁰ “We may also call them feelings because they are received into the soul in the same way as are the objects of our outside senses, and are not otherwise known by it” (*Passions* I: 28; also cf. id. I: 13, 23-9, 31).

³¹ Other examples of Descartes’ description of the operation of the pineal gland are the following: “[A] certain very small gland which is situated in the middle of its substance and so suspended above the duct

Despite the great detail in Descartes' anatomical explanation, there remains a certain obscurity as to how an immaterial substance like the soul can effectuate movement in a corporeal device such as the pineal gland? And also how the movements of the corporeal animal spirits could be transformed into the purely mental perception of sensations and passions? When Descartes had been asked how he believed that such separate substances could interact in the Fifth Objection to his *Meditations*, he dismissed the problem by stating 'that there is no truth in the premise that two heterogeneous substances should not be able to interact'.³² In regard of the causal flow from the body to the mind, however, he later came up with an additional explanation, when he established that there is an innate faculty in the mind that already possesses these perceptions. An isolated example of Descartes' explicit reference to this innate faculty occurred in his *Comments on a Certain Broadsheet* from 1647, but also in the *Passions* he seemed to imply that the mind is already in the possession of the perceptions that can be communicated to it by the corporeal movements of the body:

“ [B]ut that it [i.e. the pineal gland] may also be moved in diverse ways by the soul, whose nature is such that it receives in itself as many diverse impressions, that is to say, that it possesses as many diverse perceptions, as there are movements in the gland.”³³

A much noted feature in Descartes' discussion of this innate faculty in his *Comments on a Certain Broadsheet* is that he twice mentioned how the mind produces these perceptions *on the occasion* of certain corporeal motions.³⁴ There is no point in defining

whereby the animal spirits in its anterior cave have communication with those in the posterior, that the slightest movements which take place in it may alter very greatly the course of these spirits; and reciprocally that the smallest change which occur in the course of the spirits may do much to change the movements of this gland” (*Passions* I: 31); “I explained, I repeat, how they move them [i.e. the nerves] in as many diverse ways as the diversities which they cause us to see in things, and that it is not immediately the movements which occur in the eye, but those that occur in the brain which represent these objects to the soul” (*Passions* I: 13).

³² Cf. *Appendix to Fifth Objection and Reply* in CSM, vol. 2: 275; also cf. Clatterbaugh 1999: 29; Radner 1993: 349. In his *Interview* with Franciscus Burman from 1648 Descartes likewise produced a fairly evasive answer in stating that it was difficult to explain how these two substances can act upon each other, but that our inner experience of this is so clear that it cannot be gainsaid. One of the underlying premises in Descartes' theory of causation, nevertheless, included a transparency and similarity in the transfer from cause to effect (cf. Cottingham 1993: 220-224).

³³ *Passions* I: 34.

³⁴ “Hence it follows that the very ideas of the motions themselves and of the figures are innate in us. The ideas of pain, colours, sounds and the like must be all the more innate if, *on the occasion* of certain corporeal motions, our mind is to be capable of representing them to itself, for there is no similarity

Descartes as a body-mind occasionalist on the basis of such quotations, however, if occasionalism is interpreted as a doctrine that introduces God as the only true causal agent, who operates on the occasion of the body in order to introduce such sensible ideas in the mind. This latter interpretation is certainly not what Descartes implied by his use of the term ‘occasion’ at this point.³⁵ As also appears from a similar use of vocabulary in Descartes’ *Treatise on Man* and in his *Le monde*, there is no mention of a third causal agent aside from the body and the mind at those instances when the corporeal movements of the animal spirits give ‘occasion’ for the soul to shape these sensations.³⁶

The fact that Descartes eventually suggested the existence of an innate faculty for such perceptions yet indicates that he was also looking for ways to illuminate his mind-body interactionism, even if this involved introducing a faculty that was largely inconsistent with some of his previous epistemological claims.³⁷ Hence, it may be concluded that Descartes himself was at least partially aware of the causal problems to which his occasionalistic successors reacted, who drew their conclusions one step further by

between these ideas and the corporeal motions” (cf. *Comments on a Certain Broadsheet* in CSM, vol. 1: 304); “We make such a judgement not because these things transmit the ideas to our mind through the sense organs, but because they transmit something which, at exactly that moment, gives the mind *occasion* to form these ideas by means of the faculty innate to it” (cf. *Comments on a Certain Broadsheet* in CSM, vol. 1: 304; also cf. Cottingham 1993: 224).

³⁵ Cf. Nadler 1993: 59; Radner 1993: 351. Steven Nadler (1993: 66) described this passage as an example of occasional causation, according to which A (the body) is the occasional cause for B (the mind) to produce the effect *e* (sensible ideas). Occasionalism in the stricter sense, however, is a species of occasional causation in which the proximate and efficient cause that operates on the remote and occasional cause is God. Yet, in other species of occasional causation the proximate and efficient cause may be something different than God (cf. Nadler 1993: 66-7).

³⁶ “Being pulled in this way, the fibres cause a movement in the brain which gives *occasion* for the soul (whose place of residence must remain constant) to have the sensation of pain” (*Treatise on Man* in CSM, vol. 1: 103). In *The World* Descartes likewise refrained from introducing a third causal agent as clearly appears from the following quote: “[A]nd we shall be able to say that it is this motion alone which is called now ‘heat’ and now ‘light’, according to the different effects it produces” (*The World* in CSM, vol. 1: 84).

³⁷ One remarkable aspect of Descartes’ sudden introduction of our innate ideas of sensible impressions, is that this does not correspond with his previous claim that our innate ideas are clear and distinct, whereas the ideas that we derive from the senses are vague (cf. *Méditations* III). Another inconsistency appears from Descartes’ proof for the existence of the material world, which was based on the exact fact that we cannot derive the ideas of sensible impressions from our own thinking nature. This argument loses in force if we at once innately possess such sensible ideas (cf. *Méditations* VI).

introducing God as the only genuine causal agent in created substances according to varying degrees.³⁸

3.1.3 The Emergence of Occasionalism

After Descartes' death in 1650 his philosophy had soon come to dominate the whole of Western Europe, although many of his followers either altered his doctrine or only adopted certain components. As was mentioned earlier on, Descartes' anatomical theory on mind-body interaction by means of the pineal gland was one such aspect that was conceived as highly problematic by many of his contemporaries. On this account two additional theories of causation would emerge aside from Descartes' interactionism, which consisted in the occasionalistic theory of causation that emerged during the 1660s, as well as Gottfried Wilhelm Leibniz's (1646-1716) theory of pre-established harmony.³⁹ The main originators of the occasionalistic doctrine are generally considered to have been Johannes Clauberg (1622-65), Louis de la Forge (1632-66), Géraud de Cordemoy (1626-84), Arnold Geulincx (1624-69), and Nicolas Malebranche (1638-1715), who mostly produced their writings independently from one another. Hence, it is not so surprising that there was a large variety amongst these seventeenth-century occasionalists in terms of the degree to which they divested the created substances from their causal force. Occasionalism to its fullest extent is when: a) the body cannot cause an effect in another body; b) the body cannot cause an effect in the mind; c) the mind cannot cause an effect within the body (nor within itself).⁴⁰ While Johannes Clauberg

³⁸ Cf. Cottingham 1993: 224; Radner 1993: 349. This way of reasoning, in fact, closely corresponded with the theological commonplace that everything which happens in nature and in the life of human beings is directly dependent upon God's will. If occasionalism is looked upon in this way, then it seems to attribute a more powerful causal role to God in His Creation, which rubs down the sharper edges of Descartes' mechanical physics (cf. Clatterbaugh 1999: 6-7; Garber 1993: 10-11).

³⁹ Cf. Nadler 1993: 2. Like the occasionalists Leibniz ascribed a complete non-interactionism to finite substances, but unlike the occasionalist he still attributed a real activity to substances in the production of their own modifications. Leibniz personally interpreted occasionalism as a *constant* intervention of God, while his theory of pre-established harmony proclaimed that God had created and harmoniously coordinated all the substances by a single act of His eternal will (cf. Nadler 1993:6-8).

⁴⁰ "Occasionalism (in its extreme version) is the theory that finite created beings – whether minds or bodies – have no causal efficacy whatsoever, no power to bring about changes in one another's state. Bodies do not cause effects in other bodies nor in minds; and minds do not cause effects in bodies, nor even within themselves. God is the only true causal agent and is immediately, proximately, and solely responsible for all events in nature" (Nadler 1993: 4; also cf. id.: 60-1, 73).

and Louis de la Forge were limited occasionalists, this was certainly not the case for Géraud de Cordemoy, Arnold Geulincx, and Nicolas Malebranche who were full-blown occasionalists in regard of all three causal contexts.⁴¹

Despite the varying degrees of causal elimination in the created substances, a shared feature amongst these occasionalistic Cartesians, yet, occurred in that they all applied their causal doctrine to both the domain of body-mind as well as body-body causation. Hence, it may be concluded that these occasionalistic theories were not merely voiced as an *ad hoc* solution to Descartes' mind-body problem, because their propagators were genuinely concerned with a broader level of impotence in the created substances.⁴² According to the traditional Aristotelian view, the efficient cause for natural motions in inanimate objects simply originated from the body itself, which tends towards its natural place in the sublunary universe in accordance with its heavy or light composition.⁴³ In Descartes' mechanical physics all motion was reduced to local motion, because the inanimate bodies no longer possessed any kind of inherent inclination on account of his elimination of the Aristotelian substantial forms and their final causality. Instead Descartes had postulated a reductionist account of nature as purely extensional matter, which lacked all the sensible properties and could be exclusively grasped by the mind according to its geometrical features of size, shape, and motion.⁴⁴

⁴¹ For De la Forge an occasional, remote, or accidental cause was still a cause, whereas for such occasionalists as Géraud de Cordemoy, Arnold Geulincx, or Nicolas Malebranche the occasional causes no longer exerted any kind of causal efficacy (cf. Nadler 1993: 4, 65). For De la Forge bodies were, therefore, still a necessary condition for the mental effects that are produced by God. Notably, however, this latter line of thought also appeared in Geulincx's *Metaphysica vera*. Oppositely, Malebranche went so far as to suppose that God even was the real cause of our volitions in an important sense, which view was by no means supported by Geulincx (cf. Garber 1992: 299-300; Nadler 1993: 64).

⁴² Cf. Hirschberger 1921: 85-9; Nadler 1993: 72-3; Radner 1993: 350. An exception hereto was Johannes Clauberg (1622-65), who exclusively argued for occasionalism in regard to body-mind causation, but then it is questionable whether the latter was an occasionalist at all (cf. Nadler 1993: 72). Hirschberger, nevertheless, maintained that Clauberg also questioned the causal exchange between corporeal substances (cf. Hirschberger 1921: 85, 87).

⁴³ Apart from natural motions, Aristotle also identified violent or enforced motions in the inanimate bodies at those instances when their motion was instigated by an external mover. In the case of enforced motion it was not so easy to explain how an object could continue or accelerate its motion after it has lost contact with the external mover (such as the example of the arrow and the bow), which in Descartes' physics was solved by his principle of inertia (cf. Clatterbaugh 1999: 5, 10).

⁴⁴ Cf. Clatterbaugh 1999: 10; Dijksterhuis 1950: 22-38; Garber 1992: 63-96, 194-5. Although Descartes' physics has frequently been linked to the domain of mathematics, one should not forget the important connection with his metaphysics, since the operation of the laws of nature was entirely grounded on God (cf. Garber 1992: 293).

In contrast with his own view of the external world as purely extensional matter, Descartes criticised the substantial forms of the scholastics on account of the mental forces that they ascribed to inanimate bodies: For how can heaviness bear a body to the centre of the earth if it contains no knowledge or volition?⁴⁵ In Descartes' personal theory of causation it is, as yet, clear that he deemed it possible for the human mind and God to exert causal force in the external world. But on account of his complete physical reductionism it became more questionable how a purely extensional body could instigate motion in itself or in another body.⁴⁶ In fact, most of the occasionalistic successors denied this latter possibility on account of Descartes' writings, and they entirely reverted to his identification of God as the primary cause of motion in order to accord for the causal exchange in the external world. Although Descartes had merely confirmed an age-old theological commonplace by establishing God as the primary cause of motion (which was derived from Thomas Aquinas' *Summa theologiae* and still affirmed by many moderns), the question obviously posed itself how God shared his responsibility with the created substances now that Descartes had annihilated the substantial forms in the corporeal world.⁴⁷

Although Descartes had subscribed to the scholastic legacy by postulating God as an active force in the universe, he also made a novel contribution by introducing his laws of nature as the secondary and particular causes of motion in *Le monde* and the *Principia Philosophiae* (1644).⁴⁸ It is important to note that God's primary motive force in accordance with the secondary laws of nature does not automatically equate to an

⁴⁵ Cf. *Sixth Reply to Meditations*; also cf. Garber 1992: 98-9, 107.

⁴⁶ Cf. Garber 1992: 111-12, 161. In his *Principles* Descartes even explicitly claimed that: "[H]e will be easily persuaded that there are, in rocks or plants, no forces so secret, no marvels of sympathy or antipathy so astounding, and finally, no effects in all of nature which are properly attributed to purely physical causes or causes lacking in mind and thought; the reasons for which cannot be deduced from these same principles" (*Principles* IV.187 in Miller: 275; also cf. Nadler 1993: 3).

⁴⁷ Cf. Clatterbaugh 1999: 6-12, 14, 26, 32; Garber 1992: 74, 265, 274-7, 301. Although God was a primary and sustaining cause in Thomas Aquinas' philosophy, the latter still believed in mediating causes. Hence, while God sustains the finite substances, they might also secondarily be preserved by others; and while God causes motion, these motions are themselves still the causes of various effects. On account of Descartes' elimination of the substantial forms such mediating causes were no longer available in his mechanical worldview, wherefore God was no longer merely the conservator of the world, but He also became the direct cause of motion and change (cf. Garber 1992: 274-5).

⁴⁸ "That God is the primary cause of motion; and that He always maintains an equal quantity of it in the universe" (*Principles* II.36 in Miller: 57; also cf. *The World* in CSM, vol. 1: 85, 91-7). Most philosophers adhered to this view that God was at least the partial cause of everything, which obviously posed a question concerning the causal force of the created substances (cf. Clatterbaugh 1999: 6, 13).

occasionalistic theory of causation, which would additionally require God's immediate participation in individual causal events. It is difficult to maintain that such a direct divine participation at each individual instance would actually have occurred in Descartes' mechanical physics, since the laws of nature are universal and static because they are derived from God's immutable nature. Descartes, thus, frequently spoke in fairly unambiguous terms when he discussed the causal transfer between bodies, which he even explicitly separated from God's action in *Le monde*.⁴⁹ At other instances, however, when Descartes discussed his theory of divine sustenance in the Third Meditation and the divine conservation of motion in *Le monde* and the *Principles*; it is less clear how a body should be able to exert independent causal force if it cannot even conserve itself for a single moment.⁵⁰

The conclusion that may be drawn from the previous two sections is that Descartes' theory of causation certainly allowed for a mutual and genuine causal interaction between the human mind and the body. As yet, his writings contain some occasionalistic hints on the level of body-body causation, but even in this regard it is

⁴⁹ "Now since it does not seem possible to conceive how one body could move another except through its own movement [...]" (*The World* in CSM, vol. 1: 83); "For it follows of necessity, from the mere fact that He [God] continues to preserve it [matter], that there must be many changes in its parts which cannot, it seems to me, properly be attributed to the action of God (because that action never changes), and which therefore I attribute to nature. The rules by which these changes take place I call the rules of nature. [...]" (*The World* in CSM, vol. 1: 83); "I suppose as a second rule that when one body pushes another it cannot give the other any motion unless it loses as much of its own motion at the same time; nor can it take away any of the other's motion unless its own is increased by as much" (*The World* in CSM, vol. 1: 94; also cf. *Principles* II.40 in Miller: 61-2); "From this it follows that a body which is joined to another has some force to resist being separated from it, while a body which is separate has some force to remain separate [...]. Furthermore, this force must be measured not only by the size of the body in which it is, and by the surface which separates this body from those around it; but also by the speed and nature of its movement, and by the different ways in which bodies come in contact with one another" (*Principles* II.43 in Miller: 63; also cf. id. *Principles* II.45 in Miller: 64).

⁵⁰ Cf. Garber 1992: 263-6; id. 1993: 12-15. "This [third] rule is based on the same foundation as the other two: it depends solely on God preserving each thing by a continuous action and consequently on his preserving it not as it may have been some time earlier but precisely as it is at the very instant that he preserves it" (*The World* in CSM, vol. 1: 96). "[F]or He only maintains it precisely as it is at the very moment at which He is maintaining it, and not as it may perhaps have been at some time earlier" (*Principles* II.39 in Miller: 60). "So in now maintaining the world by the same action and with the same laws with which he created it, He conserves motion; not always contained in the same parts of matter, but transferred from some parts to others depending on the ways in which they came into contact. Thus, this continuous changing in created things is an argument for the immutability of God" (*Principles* II.42 in Miller: 62). "[W]hen I examine the idea of body, I perceive that this has no power in itself through which it can produce and conserve itself" (cf. *Meditations* III; Garber 1993: 13). Another metaphysical problem in Descartes' account of physical causation is how a substance can transfer its mode of motion to another substance, since it is ontologically impossible for a mode to exist without its substance (cf. Clatterbaugh 1999: 30-2; Cottingham 1993: 224; Radner 1993: 349-50).

unclear to which extent Descartes believed that God directly participated as the only true cause in the individual causal transfers between bodies.⁵¹

3.1.4 Arnold Geulincx's Occasionalistic Theory of Causation

These aforementioned occasionalistic cues in Descartes' account of body-body causation were certainly picked up in the writings of his occasionalistic successors, who frequently considered themselves as orthodox Cartesians. Reoccurring arguments in favour of their occasionalistic theories were the essential distinction between the human mind and the body; the passive nature of extensional substances; as well as the theological argument of God's continuous sustenance and recreation of all the finite substances.⁵² An additional and quite remarkable argument, for which especially Arnold Geulincx was known (but which also occurred in Malebranche) was the epistemic criterion he employed in order to define a genuine cause. Geulincx voiced this epistemic criterion in his famous axiom: "what we do not know how to do is not our action."⁵³ If consciousness becomes a first criterion for action, then obviously all the extensional substances are excluded as real causes. But also the human mind, - which does not seem to be aware how it brings about the motion of the body -, is excluded as a genuine cause in Geulincx's metaphysics.⁵⁴

While elaborating his occasionalistic theory in the *Metaphysica vera*, Geulincx paid little attention to the separate nature of the mind and the body in order to explain for the

⁵¹ Cf. Clatterbaugh 1999: 26, 38, 42-5; Garber 1992: 302-5. From the fact that he had identified Descartes as a body-body occasionalist, Daniel Garber (1993) also concluded that Descartes had to be a body-mind occasionalist: For if a body cannot work upon another body, how would it then be possible for such a body to exert causal efficacy in regard of the mind? Garber's hypothesis that Descartes was an occasionalist is convincingly refuted in the articles by D. Scott (2000) and H. van Ruler (2000).

⁵² Cf. Clatterbaugh 1999: 8-9, 33; Garber 1993: 10. For De la Forge's main arguments in his occasionalistic theory of causation cf. Nadler 1993: 62-3; Radner 1993: 353-55. For Cordemoy cf. Radner 1993: 355-8. For Malebranche cf. Nadler 1999: 264-5; Radner 1993: 361-2; also cf. Hirschberger 1921: 85-91, 104-10.

⁵³ MV: 35, 1.5. The original quotation in Latin reads as follows: "*quod nescis quomodo fiat, id non facis.*"

⁵⁴ In opposition to Nadler (1999), Radner indicates that the similarity between Geulincx and Malebranche in regard of their epistemic criterion is superficial. Because for Geulincx the mere fact that a body lacks knowledge is sufficient to deprive them of their causal efficacy, whereas for Malebranche bodies do not need knowledge to produce motion per se, but they need knowledge to produce motion with the regularity it actually exhibits (cf. Radner 1993: 363).

need of an occasionalistic theory, but instead he completely focused upon his epistemic axiom. Besides, Geulincx's occasionalism was not so strongly concerned with the causal relations between bodies, but rather he focused on the ethical implications of his occasionalism for human beings (as will be further discussed in section 4.4.2). In the *Metaphysica vera* Geulincx's occasionalistic theory started from the question how an individual can have thoughts that do not depend on the will, such as when we see a certain colour or hear a certain melody.⁵⁵ Whereas for Descartes it had been our sensations which led him to the conviction that the external world certainly exists in his Sixth Meditation; for Geulincx a body could by no means be the cause of such sensory impressions. As Geulincx claimed together with most other occasionalist, an irrational substance cannot be the cause of our mental sensations or other corporeal motions. Instead Geulincx believed consciousness to be a necessary condition for action. But since the human mind receives certain impressions without the consent of our own will, we have to receive them through another conscious mind, namely God.⁵⁶

Thus, not only did Geulincx apply this principle of conscious action to the operation of the body upon the mind, but the mind neither does those things of which we do not know how to do them (which are basically all our actions). From his epistemic maxim it was then derived that the human mind no longer has the power to affect the body or the external world, which is exactly what Geulincx meant when he stated: "that man is only a spectator in the world."⁵⁷ Geulincx did, thus, not claim that a divisible and extensional substance cannot interact with an indivisible and thinking substance, but rather he claimed that an extensional - and thereby irrational substance - cannot in itself be a cause. In respect of the various modalities of which an individual is conscious, such as colour, sound, and taste, these could neither have originated from the simple nature of the human mind. Thus, Geulincx was left with only one option: namely, that these modalities were caused by 'a knowing and willing being distinct from me'.⁵⁸ This was

⁵⁵ "Therefore, my consciousness has certain modalities, such as when I see purple, when I hear a melody, or when I enjoy spicy food, that do not depend at all on my will, of whose state I am intimately informed [...] But this cannot happen to me of my own accord, or come from nothing and nowhere. Therefore these modalities depend on something else [...]" (MV: 34, 1.4).

⁵⁶ Cf. MV: 34-41, 1.5-1.8.

⁵⁷ Cf. MV: 128; also cf. ETH: 37.

⁵⁸ "But He cannot arouse them through the medium of myself, since thoughts are diverse, and I am a simple thing, in which diverse thoughts cannot originate (Proposition 3)" (MV: 36, 1.6).

the start of Geulinx's occasionalistic theory, according to which God in a mysterious manner caused the diversity of our thoughts through the medium of our body, which was capable of arousing this variation by virtue of its motions.⁵⁹

Seeing that for Geulinx consciousness was the principle for action, the possibility of body-body interaction or body-mind interaction was hereby decisively excluded. Eventually it also ruled out mind-body interaction, because finite minds neither know how they affect things.⁶⁰ In Geulinx the body was, nevertheless, still required for God to produce motions and thoughts; which was different for Malebranche, who did not believe that God needed any kind of instrument.⁶¹ Although Geulinx, thus, believed that God still needed our body as an instrument to generate thoughts, he yet criticised Descartes for ascribing a union to the mind and the body (as well as he criticised Descartes for the fact that he ascribed the power of motion to the will).⁶² According to Geulinx, the union of the mind and the body is in the first intention the will of God, and only in the second intention is it the interchange between action and passion.⁶³ Therefore, my human condition is completely independent from me, since I have no choice to either be affected by my body or act upon it (even though at times certain events may coincide with the inclination of my will).⁶⁴ And from this view that we do

⁵⁹ "The body through whose instrumentality these thoughts are aroused in my mind must have modalities as diverse as they are numerous. For this to happen it must be moved in diverse ways" (MV: 38, 1.7).

⁶⁰ Geulinx was not only supportive of body-mind occasionalism, according to which God causes the thought of a sensation in my mind, such as when I perceive a colour with my eyes. Besides, Geulinx also was a defender of mind-body occasionalism, according to which God is responsible for the movements and external actions of my body whether or not these coincide with my will: "It is clear from this that, even when certain parts of my body do move in accordance with my will, I do not make this motion [...] At the command of my will (here the action is within me) my hands may move in a corresponding way (and here the action is outside me, and now translated into my body, not indeed by me but by him who can do this)" (ETH: 33-4; also cf. Clatterbaugh 1999: 98-9).

⁶¹ Cf. Hirschberger 1921: 105.

⁶² Cf. MV: 41-42, 1.9-1.10. "Nothing justifies the claim that my mind is *united* to my body; though it is often said by the vulgar; and even Descartes sometimes indulged himself a little too freely in this way of speaking" (MV: 41, 1.9); "For example, Descartes ascribed to our mind the power to determine motion; with the qualification that we do not know what state our mind will be in. But my hand is moved not at the command of my will, but by consent to it; the will is not a wall, a rock, or suchlike, that can change the direction of motion" (MV: 42, 1.10).

⁶³ "The union of the mind with the body is in the first intention the will of God, who decides when the mind acts on the body, and when it is affected by the body; in the second intention it is the very interchange of action and passion" (MV: 43: 1.10).

⁶⁴ "In this condition I act (that is, I live), yet with no effect on anything outside me: for I am either affected by my body, or I act on it (the human condition turning on these two); and I can no more choose to be affected by my body than to act on it, however often these events coincide with the inclination of my will" (MV: 44, 1.11). As will be discussed in section 4.4.2 of the next chapter, although human beings

not have the power to do anything, Geulincx arrived upon his first ethical principle: “wherein you have no power, therein you should not will”.⁶⁵

Geulincx’s occasionalistic metaphysics closely resembled the views of Nicolas Malebranche (1638-1715). Both Geulincx and Malebranche explained all events in the created world as totally dependent upon God’s causality. In accordance with Geulincx, Malebranche had closed the Cartesian gap between mind and body with the Augustinian claim that the human mind participates in the divine mind (although man’s personal identity yet remained existent in both Geulincx and Malebranche). According to Malebranche, the human mind perceives the material world from the perspective of the divine mind, and in this way he managed to connect the thinking and extended substance. Both Geulincx and Malebranche, thus, classified the human and the divine mind under the concept of the universal Mind, which they regarded as distinct from the extended universe. Hereby they reduced Descartes’ tri-partition of the extended world, the thinking mind, and God to a two-partition of a thinking and extended realm (i.e. our minds belonging to the ontological sphere of the universal Mind), on which account they were frequently considered as forbearers of Spinoza’s monism. In opposition to Spinoza and in accordance with Descartes, however, Geulincx’s preserved the freedom of the human will. Although in contrast with Descartes and in agreement with Spinoza, he believed that certain eternal truths preceded the freedom of the divine will.⁶⁶

are powerless in this world, Geulincx yet expected men to make an active attempt in their lives to let their will agree with God’s will and thereby consciously resign themselves with their predestined condition. In the end, however, everything that happens in the world is dependent upon God, so that even when we kill someone, it is in fact the Prime Mover who does this because he has dominion over life and death (cf. MV 113-114, 3.8). Geulincx did not question the fact whether this made God responsible for human sins, because in accordance with Augustine he believed that everything that God does is good (in which regard he also agreed with the traditional Calvinistic view on predestination). Besides, Geulincx followed Descartes by restricting the occurrence and application of sins to the domain of the human mind; - which in his occasionalistic theory meant that *only* our desire to kill someone is sinful, but if this event were come to pass in reality it would be God rightfully conducting this action on His own grounds (cf. *Meditations* IV; Helm 2010: 140-150; Ruler van 2002: 27).

⁶⁵ MV: 44, 1.11; also cf. ETH: 178; Radner 1993: 61.

⁶⁶ Cf. Hirschberger 1981: 128-9; Hubbeling 1983: 77-9; Ruler van 2003b: 326; Verbeek 1998: 60. The following quotation from Geulincx’s *Ethics* nicely illustrates his view concerning the freedom of the human will: “Just as a ship carrying a passenger with all speed towards the west in no way prevents the passenger from walking towards the east, so the will of God, carrying all things, impelling all things with inexorable force, in no way prevents us from resisting His will (as much as is in our power) with complete freedom” (ETH: 182). Concerning the differences and similarities between Geulincx and Spinoza cf. Hubbeling 1983: 76-8; Ruler van 1999b. For Malebranche cf. Daston & Stolleis 2008: 10; Hochstrasser & Schröder 2003: xii-xii. Various decades after the posthumous publication of Geulincx’s

In section 3.2 Swartenhengst's references to Geulincx's occasionalistic metaphysics will be discussed, which mainly appeared in his inaugural disputation from 1670; the first disputation *On Knowledge and Error* by Isaacus Hellenius; the first disputation *On the World* by Antonius Opperdoes; as well as a miscellaneous disputation that was defended by Simon Hoet in 1675. Swartenhengst most elaborately addressed Geulincx's occasionalistic metaphysics in his inaugural disputation from 1670, in which he gave an elaborate overview of the latter's body-mind occasionalism. Apart from a few comments that are scattered throughout the disputations, Swartenhengst did not pay much attention to Geulincx's mind-body occasionalism.⁶⁷ In the theses of his inaugural disputation from 1670 Swartenhengst only once indirectly mentioned God as the 'supreme Motor' in his exposition of Geulincx's body-mind occasionalism. God's genuine causal force at the expense of the body's occasional causal force is thereupon also once more explicitly addressed in a miscellaneous disputation from 1675.⁶⁸ In Swartenhengst's epistemological and natural philosophical disputations the term 'occasion' is used to explain for the subjective sensory experiences that are generated in the mind upon the occasion of the body and its motions. As yet, God's true causal force is never discussed in these disputations. Hence, although I strongly suspect that Swartenhengst did genuinely adhere to Geulincx's body-mind occasionalism due to his frequent use of the term occasion, this concept does not stand at the centre of his philosophical programme.

Ethica in 1675 he was accused of Spinozism, although his ethical theory was built on the Christian virtue of humility, which sentiment was not valued highly by Spinoza (cf. Hubbeling 1983: 76).

⁶⁷ "All people and all things necessarily obey God. On this account the proposition to obey Him is in itself useless, but the proposition to obey His law is good" (Appendix: Translations, 163, c.20; also cf. SWH 1670: c.20, ll. 27-8); "Whatever happens, happens necessarily" (Appendix: Translations, 183, c.5; also cf. id. NL3: c.5, l. 23; also cf. id. DM1: c.9, l. 11); "We can do nothing, if God would not want this" (Appendix: Translations, 210, c.8; also cf. id. DM1: c.8, l. 10).

⁶⁸ "Hic ineffabili modo Motor ille supremus in scenam prodit; corpus eiusque motum, quem corpori indidit, adhibens ad tot diversos cogitationum modos in nobis suscitandum" (SWH 1670: th.11, ll. 5-7); "Here this supreme 'Mover' advances onto the scene in an ineffable way, who is using the body and its motion (which He has placed in the body) to stir up so many diverse modes of thought in us" (Appendix: Translations, 158, th.11; also cf. id. 157-9, th.10-14). "Anima procul dubio cum cerebro praecipue et eius glandula pineali unitur, quamvis cum omnibus membris aut saltem cum alia parte corporis potuisset coniungi, sed a posteriori novimus id Deum non voluisse" (SWH PP1675: th.16, ll. 21-3); "A body in itself is a brutal thing that does not possess any power in itself in order to be moved, but it receives every motion from another, who can be no one else but God" (Appendix: Translations, 255, th.18).

3.2 SWARTENHENGST ON METAPHYSICS AND OCCASIONALISM

As was previously mentioned in Chapter One, in 1670 Johannes Swartenhengst had obtained his doctoral degree with a metaphysical disputation on the functions of the human mind and the body. In this disputation Swartenhengst presented his personal interpretation of Geulincx's occasionalistic metaphysics, which was primordially based on the latter's *Metaphysica vera* as well as his *Metaphysica ad mentem peripateticam*. Despite the fact that Geulincx's occasionalistic theory at first instance relied upon Descartes' metaphysical dualism; it distinguished itself by virtue of his remarkably different explanation for the interaction between these two substances by virtue of the 'ineffable' operation of the divine will. In various secondary sources it has been indicated that Geulincx's occasionalism did not stand at the centre of his philosophy; this rather being his ethics (which was, nevertheless, compatible and intertwined with his metaphysics). In Swartenhengst's case Geulincx's occasionalism neither stood at the centre of his disputations, apart from his inaugural disputation of 1670 that was almost exclusively devoted to the latter's metaphysics. As yet, distinct references to Geulincx's occasionalism also appeared in a miscellaneous disputation from 1675, as well as in his epistemological and natural philosophical disputations. On this account it may be assumed that Swartenhengst was at least supportive of Geulincx's occasionalism, even if he did not fixate on it in his discussion of some of the other philosophical disciplines.

In what follows the content of Swartenhengst's metaphysical disputation *De mentem eiusque functiones et corpus* [i.e. Concerning the Functions of the Mind and the Body] will be analysed. Swartenhengst gave a concise summary of Geulincx's occasionalistic theory in this doctoral disputation of 1670, which he defended several months after Geulincx's decease and dedicated to the latter's friend and patron, Abraham Heidanus. After an initial discussion concerning the simple nature of the purely thinking mind, Swartenhengst - like Geulincx - commenced the argument for occasionalistic causality with the diversity of sensations of which an individual is mentally aware. These thoughts did not originate from the mind itself. Firstly, because we do not always receive them with the consent of our will; and secondly, because our mind is not able to generate such a variety of thoughts on the basis of its simple nature:

“From here, in fact, it firstly follows that we have many thoughts, which do not in any way depend upon our mind considered in itself: for I cannot experience sense perceptions just because I want to. On its own the mind indicates truly nothing except individuality and simplicity; and by its own nature it is not in any way conceivable to involve such and so many various modes of thought.”⁶⁹

If such thoughts were then not caused by the mind, nothing other than the body could have remained as a cause in Swartenhengst’s Cartesian worldview.⁷⁰ In contrast to Geulincx, Swartenhengst made no subsequent mention of the latter’s epistemic axiom, in order to explain why such an irrational substance as our body cannot cause such thoughts. Instead he immediately concluded that this is where this supreme Mover (*Motor ille supremus*) comes onto the scene, who is responsible for all the modes of thought and the perceptions that are available to our mind:

“Here this supreme ‘Mover’ advances onto the scene in an ineffable way, who is using the body and its motion (which He has placed in the body) to stir up so many diverse modes of thought in us. It is indeed amazing whenever we consider these miraculous things in us properly: namely, that these miraculous perceptions are presented to our mind by means of the body and its motion.”⁷¹

The way in which this Mover (or God) accomplished this interaction between these essentially different substances was ‘ineffable’, according to both Swartenhengst and

⁶⁹ Appendix: Translations, 157-8, th.9; “hinc sequitur, et primo quidem: multas, quas habemus cogitationes a mente nostra in se spectata nullo modo dependere: non enim, si velim, ideo mihi qualibet sensuum perceptiones sunt observaturae: mens enim ex se non nisi unum simplexque dicit, nec ex sua natura tot ac tam varios cogitandi modos importare ullo modo cogitabilis est” (SWH 1670: th.9, ll. 17-21; also cf. Geulincx MV: 32-6, 1.2-1.5).

⁷⁰ In the Cartesian worldview reality had been reduced to the thinking and the extensional substance, which meant that if the mind was not responsible for such a variety of thoughts, only the body could remain: “And since beyond the mind, the body, and its modes nothing is further thinkable for us in the nature of things; it is, thus, necessary that one of both would be the cause or occasion of these various thoughts. Not the mind, from whose essence we can only conclude that it can think, as has just been demonstrated. Hence, it remains that the body (for nothing else remains) offers the occasion by which we think and perceive such and so many different things, and by which we are continuously lead from one thought to another” (Appendix: Translations, 158, th.10; also cf. SWH 1670: th.10, ll. 29-2).

⁷¹ Appendix: Translations, 158, th.11; “Hic ineffabili modo Motor ille supremus in scenam prodit; corpus eiusque motum, quem corpori indidit, adhibens ad tot diversos cogitationum modos in nobis suscitandum. Sane obstupendum est, quoties haec tam admiranda rite nobiscum perpendimus: mediante corpore et motu tam mirabiles menti nostrae observari perceptiones [...]” (SWH 1670: th.11, ll. 5-9).

Geulincx.⁷² However, whereas they both assumed that God coordinated this mysterious causal transfer from the body to the mind, they believed it impossible that God could arouse the diversity of thoughts by means of an instrument of unvarying modality, as also appears from the following quotation in Geulincx's *Metaphysica vera*:

“Granted that some things may, indeed must, remain a mystery to me (for instance, how thoughts are aroused in my mind through the medium of a body), I should not veil everything in the same mystery, but welcome whatever reason can reveal to me. And I understand this much, at least, that my thoughts are diverse because they are aroused in my mind through an instrument capable of diversity [...].”⁷³

In Swartenhengst this same argument appeared, that it is due to the divisible nature of the body, which allows for it to move; that the body is capable to adopt these diverse movements that are necessary to arouse the variety of perceptions in our mind:

“Because of this, when I am passive (which composes an important part of my human condition), I successively discover the awareness of so many diverse perceptions in me. For whichever succession of my thoughts I detect in myself, I declare that every sequence must be referred to the motion that has been imprinted in different ways upon the body. Accordingly as this instrument (namely the body) is divisible in infinity, it is certainly capable of its diversity (of course the motion).”⁷⁴

Importantly, however, it are not my body and its motion that arouse this diversity of perceptions in my mind, but it is ‘on the occasion’ of my body which this supreme Mover uses as an instrument, that this variety of thoughts is generated in my consciousness. In the *Metaphysica vera* Geulincx hereupon discussed how the human mind can vice versa neither affect the body, for it is this supreme Mover who

⁷² “Then, in view of the absolute incapacity of my body to supply me with thoughts by itself, it seems to me marvellous and ineffable that He can use such an inadequate and unworthy instrument to supply me with more thoughts than I can possibly think” (MV: 37, 1.6).

⁷³ MV: 39, 1.7.

⁷⁴ Appendix: Translations, 159, th.13; “a quo ego dum patior (quod praecipuam conditionis meae humanae partem constituit) successive tot diversarum perceptionum conscientiam in me deprehendo; nam quamcunque cogitationum mearum successionem in me reperio, eam omnem ad motum tam varie corpori impressum referendam esse iudico: cuius diversitatis (motus nimirum) instrumentum illud (nempe corpus) prout in infinitum divisibile, certe capax est” (SWH 1670: th.13, ll. 32-5).

coordinates the movements of my body; which He frequently does in agreement with my will but not necessarily.⁷⁵ While Swartenhengst had elaborately addressed the occasionalistic causal transfer of perceptions and thoughts from the body to the mind, he did not discuss Geulincx's mind-body occasionalism in his disputations. Possibly this was related to the fact that Swartenhengst agreed with Geulincx's epistemic axiom on the level of the body (i.e. irrational substances cannot be a cause); but he did not feel as if it could be applied to the human mind (i.e. minds *are* conscious of how they create actions in the body). At least nowhere did he refer to Geulincx's famous axiom in this inaugural disputation from 1670. In the corollaries to this same disputation Swartenhengst, yet, did mention: 'that all humans and all things necessarily obey God'. Apart from the fact that this statement was compatible with Calvin's predestination, it was also supportive of Geulincx's views that the human will cannot affect the body (let alone the world). As yet, together with Geulincx Swartenhengst did believe that men have a free will, by which they should obey God's law on the level of their intentions.⁷⁶

Swartenhengst finished his disputation with a discussion of the purely extensional nature of the body, which is characterised by its mode of either motion or rest. More importantly, however, he also came to the epistemological conclusion that our perceptions of such accidental qualities as heat and colour have nothing in common with the bodies in the external world, of which nothing remains if their extension and motion were taken away. Thus, although we are most intimately aware of these motions 'on the occasion' of the body, our perception of such accidental properties have nothing in common with these motions and the purely extensional nature of the body.⁷⁷ In this

⁷⁵ "I am united with a body, I am more or less constantly affected by it, and in turn act upon it; and as we have seen, this union consists in the good pleasure of a will, which acts on my mind through the medium of a body and motion, and in agreement with my will acts on my body [...] Nothing ever happens to me, properly speaking, because I will it, but rather because the true Mover wills what I will, just as He sometimes does not will what I will, as when my bodily organs are paralysed or exhausted" (MV: 43-4, 1.11).

⁷⁶ "All people and all things necessarily obey God. On this account the proposition to obey Him is in itself useless, but the proposition to obey His law is good" (Appendix: Translations, 163, c.20; also cf. SWH 1670: c. 20, ll. 27-8). Swartenhengst took his view one step further when in his third disputation on natural law he established that: 'whatever happens, happens necessarily'. Although this statement is again compatible with Calvin's predestined worldview, the absence of a reference to God's providential scheme gives this statement a Spinozistic ring, because God's will or power are not excluded from this necessity in the way this corollary was phrased (cf. Appendix: Translations, 183, c.5; SWH NL3: c.5, l. 23).

⁷⁷ "In order to remove any doubt, it remains [to say] that all these modes (I mean motions) of both our body and the other bodies outside us have nothing in common with all these perceptions, on the occasion

regard Geulincx and Swartenhengst had agreed with Descartes, who likewise believed that ‘the perceptions of the senses do not teach us what is really in things, but merely that whereby they are useful or hurtful to man’s composite nature’.⁷⁸ Just as Geulincx and Swartenhengst, Descartes had also discussed our modes of thought that do not depend on the mind; which had, nevertheless, led him to the exact opposite conclusion, namely, that the mind is closely united to the body:

“[F]rom the fact that pain and other sensations of ours occur without our foreseeing them; and that mind is conscious that these do not arise from itself alone, nor pertain to it in so far as it is a thinking thing, but only in so far as it is united to another thing, extended and mobile, which is called the human body.”⁷⁹

The substantially different causal explanation which Descartes and Geulincx gave for our thoughts that do not depend on the mind was related to Geulincx’s epistemic axiom, by means of which he had discarded the causal force of extensional substances. Although for Geulincx, as an individual I do possess a body on whose occasion thoughts are aroused in my mind, the claim that my mind is truly united to my body can never be justified, because this causal transfer entirely depends upon God’s will:

“My body is as alien to me as every other body, but it is mine because it is the will of God that I be affected by it.”⁸⁰

The general idea behind Geulincx’s epistemic axiom we also find expressed in Swartenhengst’s miscellaneous disputations from 1675, where he stated that:

of which we are most intimately aware of these motions. This is rendered sufficiently evident to anyone on the basis of the following: that it is clearly impossible to conceive anything else at all in an external body apart from motion and extension, since we realize that the perceptions we have of them differ in infinite ways from these [i.e. motion and extension]. For example, if we considered heat or some colour that had been presented to us: who I beseech, would think in the least of the motions of these perceptions by which the senses are stirred up in us?” (Appendix: Translations, 159-60, th.14; also cf. SWH 1670: th.14, ll. 11-20). The references to the term ‘occasion’ in Swartenhengst’s first epistemological and first natural philosophical disputation also evolved around this same line of thought cf. SWH S&E1: th.7, th.8, th.9; also cf. id. DM1: th.3, th.5, th.6.

⁷⁸ Cf. Descartes *Principles* II.3 in Miller: 40.

⁷⁹ Cf. Descartes *Principles* II.2 in Miller: 40.

⁸⁰ MV: 41, 1.9.

“The body by itself is a thing without understanding that does not have any power in itself in order to be moved, but every motion begins with somebody else, who can be nobody else but God.”⁸¹

From this latter quotation it clearly appears that Swartenhengst was supportive of occasionalism on the level of body-body as well as body-mind interaction. In this same disputation Swartenhengst also established the occasionalistic view: ‘that the human mind is strictly speaking better connected with God than with the body; whereas the human body is more strongly connected with the whole body of the world’. It is this latter view that clearly shows how Geulincx’s occasionalism is a step-in-between Descartes and Spinoza, since he brought the human mind together with the divine mind in contrast to the purely extensional corporeal realm.⁸² In his article *Minds, Forms, and Spirits: The Nature of Cartesian disenchantment* (2000) H. van Ruler pointed out that the identification of the human with the divine mind is theologically dangerous, because if humans souls are modes of the divine mind *and* incapable of moving matter, this generates the question whether God himself can still influence the course of nature.⁸³

The term occasion also appeared in several of Swartenhengst’s epistemological and natural philosophical disputations, as well as in his disputations on natural law. In

⁸¹ Appendix: Translations, 255, th.18; “Corpus per se est res bruta nec ullam de se vim habet ut moveatur, sed omnem ab alio motum accipit, qui alius nemo esse potest nisi Deus” (PP1675: th.18, ll. 31-2). This disputation was defended by one of Geulincx’s previous pupils, Simon Hoet, which fact probably accords for the relatively strong presence of Geulincxian elements in this disputation.

⁸² “Strictly speaking the human mind is better connected and united with God rather than with the body” (Appendix: Translations, 254, th.13; also cf. SWH PP1675, th.13, ll. 9-10); “The human body is united with the whole body of the world, although it seems different if you consult the senses which consider air as nothing and a void” (Appendix: Translations, 254, th.15; also cf. SWH PP1675, th.15, ll. 17-18). In Geulincx’s *Metaphysica vera* this idea was likewise expressed that the human mind pertains to God; which line of thought actually incorporates a hint of Spinozism, in the sense that the mind is a mode of the thinking nature of God and the body of his extensional nature: “We are from God, and we appertain to God [...]” (MV: 38); “We are, then, just modes of Mind: take away the mode, and you are left with God Himself” (MV: 63). As yet, Swartenhengst in this disputation thereupon explicitly distinguished himself from Spinoza’s pantheistic view of God’s identification with nature: “From here it follows that the world is not eternal; and indeed also that the finite and infinite minds differ from the world; and that these things are of a completely different kind. **Through this same reason he would see for himself that he confuses the mind with body and motion; as if the universal body with all its motion were God, and as if the human minds were the particular motions of the bodies**” (Appendix: Translations, 255, th.21; also cf. SWH PP1675, th.21, ll. 9-12).

⁸³ This criticism that occasionalism could lead to the blasphemous conclusion that God no longer exerts any kind of causal force in the universe was, however, not expressed by Cartesian contemporaries, but it was firstly formulated by David Hume in 1739 (Ruler van 2000: 390).

Swartenhengst's disputations on natural law there is only one instance where he may actually have referred to Geulincx's occasionalism, when he claimed that: 'the knowledge of things as they are in themselves is, nevertheless, based *on the occasion* of the thing of which it is the cognition'.⁸⁴ Most probably the term 'occasion' here referred to Geulincx's occasionalism, because the latter believed that the external objects are known by virtue of the corporeal occasion on which God presented them to the human mind. An indirect reference to Geulincx's occasionalism may also have appeared in his reoccurring axiom: 'This must again be referred towards this axiom: may it remain in this state in which it is, not should it be driven away from it in as much as it is on our part'.⁸⁵ The phrase 'in as much as it is on our part' seems reminiscent of Geulincx's occasionalism, who believed that humans exerted no personal causal force, since all the events in the external world (including their own body) were arranged by God.

In Swartenhengst's first disputation *On Knowledge and Error* as well as his first disputation *On the World* the references to the term 'occasion' restrict themselves to the 'occasion' by which our body allows for certain sensations to be generated in our mind. Although these passages are certainly not unsupportive of Geulincx's body-mind occasionalism, they never explicitly discuss God's true causal force in contrast with the body's occasional causal force.⁸⁶ As yet, the fact that the word 'occasion' is repeatedly used in this context - when sensations are generated in the mind by virtue of the instrument of the body and the motions in the external world - indicates that Swartenhengst was at least to some extent supportive of Geulincx's body-mind occasionalism. For his support of Geulincx's mind-body occasionalism, however, there are only a few indirect cues in the corollaries, which are so scarce in number that it would probably be best to draw no further conclusions from them.⁸⁷

⁸⁴ "Sic sensum cum *ratione* conciliamus, hoc est cognitionem non alia modo formamus, quam prout illa occasione istius rei cuius est cognitio determinatur" (SWH NL1: th.1, ll. 10-11); "Thus do we connect sense perception with *reason*, that is, we form cognition in no other way, than insofar as it is determined by the occasion of this thing of which it is the cognition" (Appendix: Translations, 164, th.1).

⁸⁵ Cf. Appendix: Translations, 174, th.5; SWH NL2: th.5, ll. 17-18; also cf. SWH NL1: th.8; id. NL3: th.5.

⁸⁶ For the references to the term 'occasion' in Swartenhengst's first epistemological and first natural philosophical disputation cf. SWH S&E1: th.7, th.8, th.9; also cf. id. DM1: th.3, th.5, th.6.

⁸⁷ "All people and all things necessarily obey God. On this account the proposition to obey Him is in itself useless, but the proposition to obey His law is good" (Appendix: Translations, 163, c.20; also cf. SWH 1670: c.20, ll. 27-8); "Whatever happens, happens necessarily" (Appendix: Translations, 183, c.5;

also cf. id. NL3: c.5, l. 23; also cf. id. DM1: c.9, l. 11); “We can do nothing, if God would not want this” (Appendix: Translations, 210, c.8; also cf. id. DM1: c.8, l. 10).

“At the very least, the new experiment reported in *Science* is going to make people think differently about what it means to be a “rat.” Eventually, though, it may tell us interesting things about what it means to be a human being. In a simple experiment, researchers at the University of Chicago sought to find out whether a rat would release a fellow rat from an unpleasantly restrictive cage if it could. The answer was yes. The free rat, often hearing distress calls from its compatriot, learned to open the cage and did so with greater efficiency over time. It would release the other animal even if there wasn’t the payoff of a reunion with it. Astonishingly, if given access to a small hoard of chocolate chips, the free rat would usually save at least one treat for the captive — which is a lot to expect of a rat. The researchers came to the unavoidable conclusion that what they were seeing was empathy — and apparently selfless behavior driven by that mental state.”

BROWN DAVID, ‘A new model of empathy: the rat’, *The Washington Post National*, 8 December 2011.

“In contrast to previous work (5, 9, 16, 17), the present study shows pro-social behavior accomplished by the deliberate action of a rat. Moreover, this behavior occurred in the absence of training or social reward, and even when in competition with highly palatable food.”

BARTAL, I.B. et al. ‘Empathy and pro-social behavior in rats’, *Science* Vol. 334, No.6061: 1424-1427 (9 December 2011).

CHAPTER 4

MORALITY IN MIND AND NATURE

4.1 INTRODUCTION

In this chapter Johannes Swartenhengst's tripartite series of ethical-political disputations will be analysed, which he presided over during his first two years as lector at the university of Leiden. The first two disputations entitled *De lege naturali* and *De lege naturali secunda* were defended by his student Simon Hoet in May and October 1672; the third disputation entitled *De origine humanae societatis* was presented by Adrianus Moll in May 1673. In these disputations Swartenhengst approached the concept of natural law from an intellectualist disposition, since it is described as 'an innate moral standard that is accessible to everyone who is following reason's precepts, and who will hereby straightforwardly unite his personal wellbeing with the continued preservation of the entire society'.¹

In these three ethical-political essays references can be found to both ancient and modern natural law theorists, but all in all Swartenhengst's concept of natural law seems to reflect a predominantly modern mentality. Apart from references to Aristotle and Cicero, these disputations thus also reflected various fragments from Hugo Grotius' *De iure belli ac pacis* (1625). Although René Descartes never wrote on the topic of a moral-juridical natural law, occasional allusions to his physical laws of nature yet seem to appear in these disputations. The same holds for Arnold Geulincx who neither produced any writings on this theme, but whose *Ethics* is frequently quoted or paraphrased. Swartenhengst also repeatedly touched upon the topic of self-preservation and he seems to have at least been aware of Thomas Hobbes' political theory; - even

¹ "Lex enim haec seu *ratio* commune praeceptum est, cuique satis (modo rite attendat) perspectum, communi propterea commodo atque utilitate statutum, totique societati ad sui conservationem ut incolumis existat inserviens" (SWH NL2: th.4, ll. 5-7). In English this quote can be translated as follows: "In fact this law or *reason* is a communal prescript, sufficiently known to each (provided that it is rightly noted), and therefore set up for the communal profit and advantage, serving all of society for its conservation in order that it exists uninjured" (cf. Appendix: Translations, 173, th.4).

though he never explicitly referred to the latter in these disputations and also presented a much more benign and sociable picture of the human species and political society.

At the time when Swartenhengst started to teach natural law in his private tuition at Leiden this subject had been newly introduced into the academic curriculum of the Law faculty at the university since 1658. Although natural law had been an integral part of Roman law from Late Antiquity onwards, it only firstly obtained an independent chair at European universities during the early modern period.² The birth of natural law as an academic subject initially occurred at Protestant universities in Germany and the United Provinces; thereupon it was also introduced as an academic course in various other Lutheran and Calvinistic parts of Europe. The discipline of natural law had, presently, not been the only curricular innovation in the legal faculties, which frequently extended their previous focus on Roman and/or Canon law with such subjects as statute and customary law, public law, and the law of nations. Amongst these additions to the legal curriculum natural law adopted an exceptional position; because it was the only subject that was taught in both the legal and the philosophical faculty (the focus on man's worrisome condition in the state of nature that presently emerged in the domain of natural law attracted the attention of both faculties). In the philosophical faculty the topic of natural law belonged to the domain of ethics and politics, which is also apparent from the title of Swartenhengst's disputations on natural law that were gathered under the heading 'disputatio ethico-politica'.³

This chapter will commence with a discussion of the age-old history of the moral-juridical natural law tradition, and the process of increasing secularisation and naturalisation that occurred in natural jurisprudence from the seventeenth century onwards. In the subsequent section I will, then, proceed to the concurrent emergence of the mathematical-physical laws of nature in the domain of natural philosophy, of which

² Cf. Brockliss 1996: 599-608; Hochstrasser & Schröder 2003: xi; also cf. Hammerstein 1972; Schmidt-Biggemann 1996: 489-530; *Series lectionum* in Molhuysen 1918, vol. 3.

³ Cf. Brockliss 1996: 599-608. At European universities the education in ethics had been primarily based on Aristotle's *Ethica Nicomachea* during the last quarter of the sixteenth century, which was frequently taught in combination with his *Politica*. The Aristotelian link between ethics and politics had, thus, imprinted its stamp on the philosophical curriculum, even if certain Roman political authors were also discussed in the philological department (cf. Dibon 1954: 59; Rackham 1967: xii-xiv; id. 1968: xx-xxi; Wansink 1981: 64-5; Woltjer 1965: 34).

René Descartes (1596-1650) is frequently considered to have been the founding father. In regard of the terminological resemblance between these diverse concepts of natural law and the law of nature (i.e. *lex naturalis* and *lex naturae*), the question will be asked how their simultaneous upsurge in the seventeenth century might be explained. And furthermore, it will be pointed out that in contrast to the secularising tendency in the domain of natural jurisprudence, an opposite dynamic was at hand amongst seventeenth-century natural philosophers, who frequently based their laws of nature on a theological voluntarism.

Hereupon I will continue with an analysis of Swartenhengst's personal natural law theory, which will be preceded by a discussion of Swartenhengst's predecessors in the ethical-political tradition at Leiden. In this regard special attention shall be paid to the *Ethics* of Swartenhengst's tutor Arnold Geulincx, which left a particular stamp on Swartenhengst's disputations as will appear from the subsequent discussion. An important theme in the analysis of the overall content of Swartenhengst's disputations will be how he combined the humble and selfless dimension of Geulincx's occasionalistic ethics with a simultaneous focus on man's worrisome condition in the state of nature and the vital importance of self-preservation. At certain points Swartenhengst's political theory obtained a rather physical appearance, because he grounded his ethics on the following axiom: 'that anything, to the extent that it remains of its own in the same state, must therefore from our part not be disturbed from it'.⁴ This ethical axiom - that seems reminiscent of René Descartes' first law of nature - reoccurs throughout all three disputations on natural law; and it creates the impression

⁴ "*Rationem* itaque tanquam omnis in theoria veritatis fundamentum esse statuimus, quam deinceps etiam ad vitae praxin seu ad omnes actionum nostrarum circumstantias extendere conaturi sumus, hoc innixuri axiomatico: quod quaelibet res quantum in se est manet in eodem statu, nec propterea nostra ex parte de eo deturbandam esse" (SWH NL1: th.3, ll. 32-4). In English this quote can be translated as follows: "And thus we declare that *reason* is to be the foundation of everything in the speculation upon truth, which we will then attempt to extend even to the practical concerns of life, or to all circumstances of our actions, relying upon the following axiom: that anything, to the extent that it remains of its own in the same state, must therefore from our part not be disturbed from it" (Appendix: Translations, 165, th.3). Descartes' first law of nature established 'that each individual part of matter continues [...] in the same state, so long as collision with others does not force it to change that state' (cf. *The World* Ch.7 in CSM, vol. 1: 93; also cf. *Principles* II.37 in Miller: 59).

that Swartenhengst was developing a legal theory that could be equally applied to both the physical and the ethical realm (as he also explicitly indicated).⁵

In the last section of this chapter the remaining influences in Swartenhengst's natural law theory will then be briefly addressed. This concerns the influence of such ancient authors as Aristotle and Cicero, but also his relation to modern thinkers such as Hugo Grotius and René Descartes. Importantly, in Swartenhengst's disputations on natural law there was no reference to its divine origin. His natural law theory also had an exceedingly rational and scientific appearance, which may remind some of Thomas Hobbes' mechanistic politics (who based his political theory on the principles of motion and believed that even the tiniest psychological changes could be mechanically explained). Although Swartenhengst depicted a fairly pessimistic image of human society without the operation of natural law, he held an entirely different view on the concept of self-preservation than Hobbes. According to Swartenhengst, the individual and communal wellbeing still naturally connected, as long as one followed reason's precepts and abstained from acting on the basis of pure passion. In the end Swartenhengst, thus, still remained a true follower of his teacher Arnold Geulincx, even if he added some interesting original thoughts concerning the topic of natural law.

⁵ "Hoc igitur attributo (*dictando* scilicet) *ratio* seu lex naturae quam latissime sese extendit, utpote etiam tam ad res physicas, quam ad illas quae nos metipsos, ac alios extra nos homines concernunt, et respectum ad illos dicunt" (SWH NL1: th.7, ll. 9-11). In English this quote can be translated as follows: "Thus, through this attribute (namely *dictating*) *reason* or the law of nature extends itself as far as possible, as much with physical things, as with those which concern both ourselves and other humans beyond us, and which instruct us to take account of them." (Appendix: Translations, 167, th.7). In his first disputation *De Mundo* Swartenhengst confirmed that he also acknowledged laws in the physical domain: "Through this itself, therefore, in that we suppose that motion was impressed upon the bodies in this certain way, and according to a certain standard and law; through this itself we comprehend all things to come forth, which press upon us these numerous perceptions and affect our senses in various ways" (Appendix: Translations, 205, th.1; also cf. SWH DM1: th.1, ll. 23-6). The fact that Swartenhengst tried to establish a connection between physical and moral regularities had in itself not been controversial, since the connection between God's natural and moral order had already been established in Protestant natural philosophy by such theologians as, for example, Melancthon (cf. Kusukawa 2008: 105-21).

4.2 THE HISTORICAL EVOLUTION OF NATURAL LAW

4.2.1 *The Origin and Early History of Natural Law*

Despite its late birth as an independent subject in the academic world, the origin of natural law can be dated back to ancient Greek philosophy. Henceforth the concept of natural law adopted a central place in European theories on law, ethics, and politics for more than two thousand years. In his work on *Hobbes and the Law of Nature* (2009) Perez Zagorin notably pointed out that the concept of a moral-juridical natural law (regardless of whether this was interpreted from a pagan or Christian background) played a crucial role throughout history in providing the world with a universal meaning and inherent providence. Underlying the concept of natural law is the notion that nature inherently contains the universal norms and standard of a teleologically directed moral order; with which nature had been endowed by either the divine will or reason; and which principles are known to mankind by virtue of their universally implanted rational faculty.

In ancient Greek philosophy Aristotle's *Ethica Nicomachea* is frequently seen as a forebear of the natural law tradition, since the latter approached the general concept of natural law with his teleological naturalism and final causality. In his *Politica* Aristotle's teleological view of nature is confirmed in his description of man as a political animal (*zoon politikon*), who seeks association with others in order to fulfil his human needs. Hence, the creation of the city state (*polis*) is an unfolding teleological process, in which men and women unite in families in order to supply for their basic needs. Thereupon these families gathered into villages and larger communities, which eventually results in the evolution of a political state that was based on the need to supply for the bare necessities of life, but which continues its existence for the sake of the good life of its human members.⁶

⁶ Cf. Hommes 1961: 23-6; Zagorin 2009: 6; Aristotle *Nicomachean Ethics* Bk 5, Ch.7; *Ethica Nicomachea* 1134b-35a; id. *Politics* Bk 1, Ch.1; *Politica* 1252b 7-9.

An explicit formulation of natural law as a moral standard firstly occurred in the Stoic tradition during the fourth and third centuries BCE, who spoke of a single natural law rather than a diversity of precepts. The Stoics perceived a connection between virtue, reason, and nature; and they considered nature and the cosmos as a harmonious order that is pervaded by divine reason and universal law. Hence, they considered natural law as a dictate of reason that is grounded in nature, which prescribes what is right and just to all humans. In contrast to Aristotle, the Stoics placed a stronger emphasis on the importance of self-preservation, which nevertheless remained related to the principles of justice.⁷

In the second and first century BCE natural law transferred from Greece to the Roman Empire, where the statesman and orator Marcus Tullius Cicero also discussed this theme in various works. In his *De legibus*, for example, he had defined natural law ‘as the highest principle of reason that is implanted in nature, and which can besides complete itself as law in the human mind’.⁸ Through the writings of Cicero and other ancient authors natural law eventually also left its stamp on the structure of Roman law during Late Antiquity, when the *ius naturale* was recorded in the *Corpus Iuris Civilis*.⁹ In the Roman law of the republican era natural law had not superseded civil law in the case of a conflict between the two (slavery, for example, was considered as contrary to natural law but yet legitimate).¹⁰ Later on natural law also obtained a place in Christianity: in the New Testament, for example, natural law was confirmed by St. Paul’s *Letters to the Romans*, which claimed that ‘God had inscribed His law on the hearts of the people’.¹¹ Despite the Christian abhorrence of the Stoic emphasis on self-

⁷ Cf. Hommes 1961: 13, 20-42, 59; Scattola 2003: 1-2, 5-6, 9-10; Tuck 1993: 6-7, 11, 20, 32-3, 53-4, 63, 120; Zagorin 2009: 6.

⁸ “Igitur doctissimis viris profisci placuit a lege, haud scio an recte, si modo, ut idem definiunt, lex est ratio summa, insita in natura, quae iubet ea quae facienda sunt, prohibetque contraria. Eadem ratio, cum est in hominis mente confirmata et perfecta, lex est” (Cicero *De legibus* 1.5.18).

⁹Cf. Brockliss 1996: 599; Schröder 2008: 58; Zagorin 2009: 7. In Roman law natural law was sometimes identified with the law of nations (*ius gentium*), and some also considered it as a name that applied to that which is in all circumstances good and equitable (cf. Schröder 2008: 58; Zagorin 2009: 7).

¹⁰ Cf. Daston & Stolleis 2008: 6.

¹¹ “Indeed, when Gentiles [non-Israelite tribes], who do not have the law, do by nature things required by the law, they are a law for themselves, even though they do not have the law, since they show that the requirements of the law are written on their hearts, their consciences also bearing witness, and their thoughts now accusing, now even defending them” (*Romans* 2.14-15). In contrast to the New Testament, however, God’s omnipotence and the contingent character of reality had still been more strongly stressed in the Old Testament, such as is the case in for example the *Book of Job*.

preservation, they initially, yet, unambiguously copied the innate intellectual character in their conception of natural law.

During the decline of the Roman civilisation the Church Fathers, such as St. Ambrose, St. Augustine, and St. Isidore of Seville, transferred the classical conception of an immutable natural law and its association with justice and moral values to the Christian Middle Ages. The Church Fathers exposed some hostility towards the Stoics' pagan conception of natural law, since they desired to establish an immediate link between natural law and divine law. In Christianity natural law could, thus, immediately be derived from divine law, and hence it surpassed all positive law in terms of its normative validity. In the *Decretum* of the twelfth-century canonist Gratian, for example, the latter confirmed that natural law began with the creation of man as a rational creature; that it is unchangeable; and that it was ranked above all positive law.¹² The divinely-ordained teleological character which the Christian tradition had hereby implanted in nature can explain the subsequent popularity of Aristotle, whose works appeared in Latin translation in Europe during the twelfth and thirteenth century.

4.2.2 The Intellectualist-Voluntarist Debate

The transcendental foundation of natural law in God and nature, its supremacy above all other types of law except divine law, and its innateness in the human mind were all principles that were generally confirmed by many scholastic philosophers from the late Middle Ages.¹³ The list of medieval thinkers who concerned themselves with the topic of natural law is a long one, but the most well-known contributor to this tradition was of course Thomas Aquinas (1225-1274), who famously attempted to unite Christianity with Aristotle's teleological naturalism. In his *Summa theologica* Aquinas formulated a paradigmatic definition of natural law 'as the rational participation of mankind in God's eternal law (*lex aeterna* or *ius divinum*)'.¹⁴ According to Aquinas, God ruled the

¹² Cf. Hommes 1961: 32-8; Tuck 1993: 10; Zagorin 2009: 7-8.

¹³ Cf. Zagorin 2009: 8.

¹⁴ "But because the rational creature partakes thereof in an intellectual and rational manner, therefore the participation of the eternal law in the rational creature is properly called a law, since a law is something pertaining to reason, as stated above" (Aquinas *Summa Theologica* 2.1 quaest. 91, reply on 3).

universe by virtue of His divine law (or *lex aeterna*), and in as far as this applied to the rational human nature this was called *lex naturalis*. Because man's intellectual soul was created according to the image of divine reason, humans were capable of rationally discerning these universal principles in nature.

During the thirteenth and fourteenth century Aquinas' intellectualist stance on natural law would evoke a great deal of discussion: Aquinas' view that the principles of divine law were immanently available to man's rational faculty had induced the fear that God Himself had been bound to a pre-existing rational order when implementing these truths in nature.¹⁵ The existence of a pre-existing rational order posed a threat to God's absolute freedom: since God might then have ordained the moral rules of natural law, not because He wanted them to be this way, but because He knew them to be objectively just and right, so that these could have been no other than they were. This firstly imposed a question mark concerning the absolute freedom of the divine will at the time of His creation. But in later centuries the intellectualist-voluntarist debate also started to revolve around the question whether God still possessed the power to intervene in this rationally-ordained course of nature after He had completed His creation.¹⁶

In reaction to the theological threats that could potentially be derived from an intellectualist view of natural law, the so-called voluntarists of the thirteenth and fourteenth century started to defend the supremacy of the divine will over His intellect. Thus, the voluntarists maintained that God's sovereign will and omnipotence lay at the basis of natural law's moral dictates. According to this account actions are not good because they are inherently so. No, they are good because the divine will has chosen to

¹⁵ In 1245 Aquinas had established a distinction between God's absolute power (*potentia absoluta*) and his ordained power (*potentia ordinata*), so that he could clarify the relation between God and natural law. In 1277 the Franciscan order opposed to Aquinas' view on the comprehensibility of the world, which according to their opinion composed a threat to God's freedom. By implementing an objective rational order in the world God would thereby also subject Himself to these rules, which placed a restriction to His absolute and/or ordained power. The fear for such reasoning had been motivated by the Aristotle-interpretation of Avicenna and Averroes, whose readings allowed for the conclusion that there is an independent rational order. The Franciscans opposed to this possibility by defending God's absolute power, and by supporting the supremacy of the divine will over His intellect (cf. Armogathe 2008: 264-9; Osler 1994: 10-11, 16-18; Vermij 1999: 113-16).

¹⁶ Cf. Zagorin 2009: 9. This was the exact question that would be raised by Descartes' mechanical physics, as was briefly discussed in Chapter Two.

define them as such. The rules of morality are therefore arbitrary according to the voluntarist position, of which Duns Scotus and William of Ockham were the foremost exponents.¹⁷ As a result of the voluntarist view the divine will had been completely free at the time of creation, wherefore it also possessed the power to intervene in nature's course at any point thereafter (which made reality more contingent and less accessible to human reason). However, as Perez Zagorin importantly mentioned, 'the distinction between intellectualism and voluntarism is not so black-and-white, since philosophers usually seem to have tried to make allowance for both God's will and His reason in dealing with the basis of natural law'.¹⁸

4.2.3 The Secularising Tendency in Early Modern Natural Law

From the sixteenth until the late eighteenth century natural law remained a crucial concept in European moral and political philosophy, which was discussed by numerous authors. The partial collapse of the Catholic Church after the onset of the Reformation had, nevertheless, induced a process of gradual secularisation; which over time also affected the domain of natural law. In the humanistic tradition a stronger emphasis on human freedom in the political state emerged, - which was no longer the territory for moral perfection in the Aristotelian or Thomistic sense -, but became a collective of free individuals that were placed under a common sovereign. Initially the increasing importance of *la raison d'état* that had emerged from such works as Machiavelli's *Il Principe* (1532) was supported by the emphasis on self-preservation that could be derived from Cicero's works.¹⁹ During the second half of the sixteenth century, however, a shift towards an interest in Tacitus (55-120) occurred in order to underpin the upsurge of absolutist political theories. At Leiden the shift towards Tacitism mainly occurred in the philological courses, while the traditional philosophical subjects continued to be based on Aristotle. The latter was typically read together with Cicero at

¹⁷ Cf. Hommes 1961: 33; Zagorin 2009: 9.

¹⁸ Cf. Zagorin 2009: 9.

¹⁹ Cf. Hommes 1961: 39-42; Tuck 1993: 20-2.

many Protestant universities during the seventeenth century, as was also the case in Swartenhengst's ethical-political disputations.²⁰

Despite the focus on the sinfulness and corruption of human nature in the aftermath of the Reformation, there were yet many sixteenth-century Protestant theologians who still used natural law as a guide for human conduct that had been implanted in man's rational faculty by God. Philipp Melanchthon (1497-1560) was one of those sixteenth-century thinkers who tried to preserve intact a sacralised scholastic-Protestant natural jurisprudence. According to Melanchthon, God had wished that firm and immutable knowledge for the correct life was available to human beings; and he, therefore, believed that certain scientific and moral propositions were available to mankind as innate principles. The belief that natural law was a genuine law; unalterable by any human power; from which the positive law was derived, - was thus still widespread amongst Protestant thinkers at the beginning of the early modern period.²¹

An important contribution to the early modern natural law tradition was made by the Dutch jurist Hugo Grotius (1583-1645) with his publication of *De iure belli ac pacis* ('On the Law of War and Peace') in 1625. Grotius had previously been exiled from the Dutch Republic on account of his political engagement in Johan Van Oldenbarnevelt's republican regime, as was previously discussed in Chapter Two. He was, thus, living in France at the time of this major publication, and even though the political situation in the Republic took a favourable turn for Grotius after the death of Prince Maurits in 1625, he never managed to obtain permission for a permanent return to his home

²⁰ Cf. Brockliss 1996: 600-3; Duynstee 1956: 1; Hommes 1961: 13, 20-42, 59; Scattola 2003: 1-2, 5-6, 9-10; Tuck 1993: 6-7, 11, 20, 31-3, 53-4, 63, 120, 128; Wansink 1981: 20-1. During Swartenhengst's student years Tacitus was still taught at the university by the professor of History Georgius Hornius (1620-70) (cf. *Series Lectionum* in Molhuysen 1918, vol. 3).

²¹ Cf. Hochstrasser & Schröder 2003: xiv; Kusukawa 2008: 105-21; Schröder 2008: 62-7; Zagorin 2009: 9-10. Under the influence of Martin Luther (1483-1546) German Protestantism had initially rejected the concept of natural law in favour of faith, since only the latter could guide men on their road to salvation. For some Protestant thinkers who wished to maintain the concept of natural law, the moral and epistemological discontinuity between human reason and divine law, led them to a more secular approach of natural law. Samuel Pufendorf is an example of the latter type, who distinguished natural law from theology. Yet, the role of the divine will remained strongly represented in the created universe on account of Pufendorf's theological voluntarism. Pufendorf, thus, strongly rejected Hugo Grotius' intellectualist claim that certain moral principles could have an intrinsic existence in human nature prior to their divine legislation (cf. Duynstee 1956: 26-29; Haakonssen 1998: 1324-6, 1334-40; Simmonds 2002: 220-2).

country.²² Just like Aquinas, Grotius established himself as a straightforward intellectualist in this work on natural law, as he believed that the human mind can deduce the moral precepts from nature by ‘a sure process of reasoning’.²³ Grotius, thus, perceived a direct connection between the dictates of human reason and the moral laws of nature, as for example appears from his definition of natural law in Book One:

“The law of nature is a dictate of right reason, which points out that an act, according as it is or is not in conformity with rational nature, has in it a quality of moral baseness or moral necessity; and that, in consequence, such an act is either forbidden or enjoined by the author of nature, God.”²⁴

From this definition it also appears that Grotius considered the principles of natural law to be in agreement with the divine commands and prohibitions. In this respect his view corresponded to the general opinion of his time. In contrast to the theologically-grounded natural law theories of most of his predecessors, however, Grotius no longer aspired to place the foundation of natural law in either divine law (*lex aeterna*) or Revelation. To the opposite, Grotius in the *Prolegomena* explicitly distinguished divine law - as this is expressed in the Old and New Testament - from natural law.²⁵ Divine law, according to Grotius, had originated from God’s free will, whereas natural law can be deduced from the purely rational and sociable principles of human nature.²⁶ Even

²² For a concise biographical overview on Grotius cf. Bok 2003: 366-74; also cf. section 2.1 on the theological-political conflict in the Dutch Republic at the beginning of the seventeenth century that led to Grotius’ imprisonment and his secret escape to France.

²³ “But when many at different times, and in different places, affirm the same thing as certain, that ought to be referred to as a universal cause; and this cause, in the lines of inquiry which we are following, must be either a correct conclusion drawn from the principles of nature, or common consent. The former points to the law of nature; the latter, to the law of nations [...] For whatever cannot be deduced from certain principles **by a sure process of reasoning**, and yet is clearly observed everywhere, must have its origin in the free will of man” (Grotius *Prolegomena* 40).

²⁴ Grotius *On the Law of War and Peace* Bk 1, Ch.1, §10.

²⁵ “There are some who urge that the Old Testament sets forth the laws of nature. Without doubt they are in error, for many of its rules come from the free will of God. And yet this is never in conflict with the true law of nature; and up to this point the Old Testament can be used as a source of the law of nature, provided we carefully distinguish between the law of God, which God sometimes executes through men, and the law of men in their relations with one another” (Grotius *Prolegomena* 48; also cf. id. *Prolegomena* 11-14, 16, 49-51; Haakonssen 1998: 1328-9).

²⁶ Grotius obviously did not completely discard the role of God, to whom the internal principles of natural law could still be attributed because He had created them in mankind. Yet, Grotius did maintain a strong distinction between natural law and divine law; the former which originated from nature, the latter which had its origin in God’s free will: “The acts in regard to which such a dictate [of the law of nature] exists are, in themselves, either obligatory or not permissible, and so it is understood that necessarily they are

though the principles of natural law will never be in conflict with divine law (since God is the Creator of human nature), it remains human nature itself that figures as ‘the mother of natural law’.²⁷ The naturalised and secularised foundation that Grotius had hereby established for his natural law theory was frequently interpreted as a threat against theology, because it undermined God’s traditional role as the lawgiver.

Apart from distinguishing natural law from divine law and Revelation, Grotius also distinguished it from positive law. According to Grotius, natural law first of all differed from civil law because the latter was based on the free human will, which was grounded in the social contract that had to be obeyed on the basis of the rule that *pacta servanda sunt*.²⁸ Natural law, besides, also differed from the law of nations (or the *ius gentium*), because the latter was based on a human consensus, whereas the former is universally inherent to nature and human reason. Grotius’ combined effort to separate natural law from all the other legal spheres (i.e. divine law, positive law, and the law of nations) and to place its origin in human nature, - can clearly be interpreted as an attempt to naturalise and secularise the origin of natural law. Although this in itself might already have been sufficient reason for theological suspicion amongst his contemporaries, Grotius most explicitly compromised himself with his notorious *etiamsi daremus*. With the previous intellectualist-voluntarist debate in mind, Grotius obviously hit a sensitive nerve when he alluded to ‘a rational order of nature that would be valid, even if God did not exist’:

enjoined or forbidden by God. In this characteristic the law of nature differs not only from human law, but also from volitional divine law; for volitional divine law does not enjoin or forbid those things which in themselves and by their own nature are obligatory or not permissible, but by forbidding things it makes them unlawful, and by commanding things it makes them obligatory” (Grotius *On the Law of War and Peace* Bk 1, Ch.1, §10).

²⁷ “**For the very nature of man**, which even if we had no lack of anything would lead us into the mutual relations of society, **is the mother of the law of nature**” (Grotius *Prolegomena* 16).

²⁸ This principle ‘that agreements must be preserved’ composed a basic element in most natural law theories (cf. Zagorin 2009: 61). In his *De iure belli ac pacis* Grotius distinguished natural law from positive law, and he explicitly based this latter branch of law on the free human will (cf. Grotius *Prolegomena* 15, 30). Even though natural law and positive law still complemented each other, according to Grotius, they now became independent legal spheres that yet could not contradict each other. Besides, Grotius also explicitly distinguished natural law from the law of nations, since the first is derived from nature whereas the latter is based on a human consensus (cf. Grotius *Prolegomena* 40).

“What we have been saying [concerning natural law] would have a degree of validity, even if we should concede that which cannot be conceded without the utmost wickedness, that there is no God [...]”²⁹

Even though the intellectualist-voluntarist debate had presently lost much of its momentum, Grotius’ assumption concerning a pre-existing rational order on the natural level involved important implications for God’s absolute freedom. Because despite the fact that divine law originated from God’s free will, the natural realm had now become dominated by an objective rational order, which might be perceived as independent from the divine judgement due to Grotius’ *etiamsi daremus*. Although Grotius simultaneously continued to stress the inevitable agreement between natural law and divine law, the publication of his *De iure belli ac pacis* seems to have marked the onset of a secularising tendency in moral-juridical natural law.

By the middle of the eighteenth century natural law had completely lost its claim to divine legislation, since it had then become a moral principle that humans could derive from nature on a purely rational basis. Such a view cannot yet be ascribed to Hugo Grotius himself, who as a humanist was still indebted to the Scholastic tradition in natural law. Besides, Grotius’ opinion that nature contains an intrinsic order which can be derived by purely rational means was not new (as it had already been voiced by earlier natural law theorists from the late sixteenth century); and neither was it incongruent with the basics of natural theology.³⁰ Yet, Grotius’ explicit formulation of the intrinsic value of natural law (whereby he derogated the role of divine law and Revelation), would be considered controversial by many of his successors in this period. Nonetheless, it is important to note that Grotius had not naturalised the origin of his natural law theory in order to attack orthodoxy, but rather he wanted to provide natural law with a secure protection against sceptical considerations.³¹

²⁹ Grotius *Prolegomena* 11.

³⁰ Cf. Hommes 1961: 42-4; Schröder 2008: 61. Natural theology also claimed that a rational order had been inscribed in the book of nature, which could be rationally deduced without making reference to God or Revelation (cf. Jorink 2008: 13-15).

³¹ Cf. Duynstee 1956: 23-9; Haakonssen 1998: 1317-40; Hommes 1961: 26-41; Jorink 2008: 13-15.

In contrast to Grotius' relatively optimistic image of man's sociable nature, a negative picture of mankind's inherent disposition was depicted by the English philosopher Thomas Hobbes (1588-1679). Hobbes elaborated a mechanistic model of nature that was based on the principles of motion; to which the human affects were also subjected. His political theory was marked by his view of the state of nature, in which the rule of the strongest and the role of self-preservation predominated in the construction of human society. Due to the war of each against all, people united themselves in a civil society, in which they sacrificed their natural rights to the sovereign. Hobbes still deduced a moral natural law on a rational basis, but these were merely hypothetical theorems that should guide humans away from the pre-political state of nature into a civilised society. For Hobbes the sovereign was still bound to natural law in his consciousness, but no longer legally. According to this account the absolute validity of a moral natural law no longer existed, but it should be mentioned that Hobbes currently adopted an extreme position amongst his contemporaries.³²

The German natural law theorist Samuel von Pufendorf (1632-94) exposed a view that held the middle between Grotius and Hobbes. Pufendorf accepted man's sociality as the basis of natural law, but he also believed that men united themselves in civil society as a means to enhance their self-preservation. In opposition to Grotius, however, Pufendorf rejected the innate nature of natural law (considering *Romans* 2:15 as merely figurative), and he insisted upon the cultivation of the soul in formulating such complicated concepts.³³ Although it had only been in Hobbes' writings that the actual validity of natural law came under pressure, there was a state absolutist tendency in both Hobbes and Pufendorf: both agreed that positive law was no longer rational and expedient, but that it originated from the arbitrary command of the legislator. For Pufendorf natural law, yet, remained a valid law that had initially originated from God's free will (even if it was no longer written in the hearts of men, but could be discerned by reason only). At the end of the seventeenth century Christian Thomasius (1655-1728) still adhered to the concept of law in the strict sense as the order of a ruler, but natural

³² Cf. Hommes 1961: 45.

³³ Cf. Daston & Stolleis 2008: 10; Haakonssen 1998: 1324-6, 1334-40; Simmonds 2002: 220-2. At the time when Swartenhengst wrote these disputations on natural law Pufendorf's *Ius naturae et gentium* was also published in 1672.

law he rather considered as *consilia* than as an order. Both Hobbes and Thomasius adopted the more radical view that natural law held juridical validity *only* if it was realised in positive law.³⁴

Gottfried Wilhelm Leibniz (1646-1716) had been early in recognising that the derivation of natural law from human nature might endanger the rational validity of natural law; this danger became concrete during the second half of the eighteenth century.³⁵ From the middle of the eighteenth century onwards the influence of the divine legislator was abandoned, and now a concept of natural law was developed that literally followed the earlier definition of Hugo Grotius in the strict sense. Thus, there no longer was an adequate basis for natural law in God, but only in human nature (which became to be interpreted in an increasingly psychological and empirical fashion). One of the arguments that undermined the rational validity of natural law was the question how we could know whether we interpreted the laws of nature correctly, if God had not directly revealed them to us?³⁶ This growing scepticism concerning the self-evidence of natural law occurred in both jurisprudence and natural philosophy during the late seventeenth century, when it was accepted that these laws could only be recognised *post hoc* through experiments and not as *a priori* notions. Eventually the drive in natural philosophy to embrace the most variable empirical phenomena within the framework of natural law also led to a collapse of the divinely ordained laws of nature that were discoverable by reason.³⁷

³⁴ Cf. Haakonssen 1998: 1324-6, 1334-40; Hommes 1961: 44-5; Schröder 2008: 64; Simmonds 2002: 220-2.

³⁵ Cf. Daston & Stolleis 2008: 10; Hochstrasser 2000: 80-9.

³⁶ Cf. Daston & Stolleis 2008: 10; Schröder 2008: 64-7; Zagorin 2009: ix. This question was even more strongly enforced by Protestant theology, which was traditionally very sceptical concerning the human ability to discern God's intentions in the world.

³⁷ Cf. Daston & Stolleis 2008: 10-11; Daston 2008: 234.

4.3 NATURAL LAW IN JURISPRUDENCE AND NATURAL PHILOSOPHY

4.3.1 *The Diverse Meaning of Natural Law and Laws of Nature*

Between 1650 and 1800 some crucial changes had thus occurred in the domain of natural law, which eventually changed the basic meaning of this term in our everyday vocabulary. Firstly, whereas positive law had previously been considered as just and virtuous in itself; it obtained the meaning of a contingent and arbitrary command during the seventeenth and eighteenth century. Secondly, God as the legislator of nature and morality disappeared from the scene. This meant that positive law was no longer objectively just and right, but as yet absolutely valid in the modern state; whereas natural law had lost its divine origin and was, therefore, no longer binding in the absolute sense. This ever-widening separation of positive law and natural law resulted in the exclusive predominance of positive law in the legal domain. Henceforth the traditional application of natural law in its moral-juridical sense was gradually abandoned, and it was replaced by the modern meaning of natural law (or law of nature) in its physical application as a causal regularity in the late eighteenth century.³⁸

On this account it is no coincidence that many secondary works on the history of moral-juridical natural law commence by stating - that despite this terminological overlap - natural law in the earlier sense is entirely different from the definition with which we are familiar nowadays: namely, natural law or the laws of nature as physical regularities or causal relations in nature. Although the respective histories of both types of natural law have been thoroughly studied separately from one another, little attention has been paid to the question whether and how their development might be historically related. Lorraine Daston and Michael Stolleis (editors) provide a diverse response to the question 'why natural law suddenly became to be simultaneously exploited in both the legal and physical domain during the seventeenth century' in their book *Natural Law and Laws of Nature in Early Modern Europe* (2008).³⁹

³⁸ Cf. Schröder 2008: 63-71.

³⁹ Another important question that is addressed in this book is why the aforementioned voluntarist theology that advanced in the fourteenth century was suddenly revived in natural philosophy during the

In the academic literature various plausible hypotheses have been suggested for the seventeenth-century upsurge of moral-juridical natural law, - such as the idea that the concept of natural law promoted the interest of absolutist monarchies; that it could be wielded as a weapon in religious polemics; or that the discovery of the diversity of human custom obliged jurists to seek for a more stable foundation of international law. The rise of the term law in the domain of natural philosophy corresponded to the start of the Scientific Revolution and the breakthrough of the worldview of matter in motion. The question remains, however, why in contrast to the current secularisation in the domain of natural jurisprudence, many modern natural philosophers grounded their laws of nature on a theological voluntarism.⁴⁰ In what follows a discussion will be made of Descartes' mechanical laws of nature, as well as the innate intellectualism and theological voluntarism that accompanied these laws (as was already discussed in Chapter Two). In the subsequent discussion concerning the content of Swartenhengst's natural law theory, it will then appear that the latter might have attempted to adapt Descartes' first law of nature into a moral maxim.

4.3.2 René Descartes' Laws of Nature

Even though the physical laws of nature were a distinctly modern concept, a vaguely similar use of the term law had already occurred in such ancient authors as Seneca and Pliny; the medieval logical tradition; medieval optics and astronomy; or more recently in Nicolas Copernicus, Johannes Kepler, and Francis Bacon.⁴¹ Despite their earlier history, René Descartes (1596-1650) is generally considered as the founder of the laws of nature in their modern meaning, because he was the first one who applied these laws in an absolute and universal sense to physical phenomena. When Descartes for the first time publically discussed his laws of nature in his *Discours de la méthode* in 1637, a sense of uneasiness was still felt with the notion of laws that could be universally applied to inanimate objects. The prominent role which the laws of nature henceforth

seventeenth and eighteenth century; while there was at the same time a secularising tendency on its way in legal natural law, where Protestant jurists were eager to undermine the divine justification of natural law (cf. Daston & Stolleis 2008: 3).

⁴⁰ Cf. Daston & Stolleis 2008: 1-3; Milton 1998: 680-701.

⁴¹ Cf. Daston & Stolleis 2008: 2, 5, 11.

played in physics from the middle of the seventeenth century onwards, they largely attribute to the way in which Descartes had introduced them in his natural philosophy.

In Chapter Two and Three of this dissertation it was already discussed how Descartes reduced the physical reality to the concepts of matter and motion in his treatise *On the World*, as well as in the *Discourse* and *The Principles of Philosophy*. It was also discussed how he described all the movements and changes in the physical realm according to three immutable and universal laws of nature.⁴² In Latin Descartes called the physical law of nature *lex naturae*; which term closely corresponded to the legal tradition, where natural law was also called *lex naturae*, *lex naturalis*, or *ius naturale*. Despite this terminological resemblance, it is not quite sure if Descartes actually copied the term law of nature from the legal domain. And it might be more probable that he adopted the term from Scholastic mathematics, where the concept of laws had also been employed in certain areas. In regard of their meaning Descartes' laws of nature are in any case strongly different from natural law in the legal sense; since the former exclusively applied to natural phenomena, whereas the latter pertained to the moral and political aspects of human society.⁴³

4.3.3 Theological Voluntarism and Innate Intellectualism

As was mentioned previously, in contrast to the secularising tendency in the domain of seventeenth-century moral-juridical natural law, there was an opposite development at hand within the area of early modern natural philosophy. In regard of his physical laws of nature, René Descartes (unlike Hugo Grotius) refuted the naturalised origin which the latter had established for his natural law theory. Instead Descartes strongly reaffirmed the voluntaristic origin of the laws of nature and all the other eternal truths in God's free will. According to Descartes, it was by virtue of His free will that God had implemented

⁴² The three immutable laws of nature of the Cartesian mechanical worldview are the following: the first one is the law of inertia, according to which an object continues in its state of motion or rest, as long as it is not interfered with by another object; the second law referred to God's preservation of a constant amount of motion in the universe; and the third law described the universal tendency of objects to move along straight rather than circular lines (cf. Descartes *The World* Ch.7 in CSM, vol. 1: 92-8; also cf. *Principles* II.37-40 in Miller: 59-62).

⁴³ Cf. Schröder 2008: 59-60; Vermij 1999: 105-119.

these laws in nature at the start of creation, and ever since He had preserved the world according to these laws. In accordance with the intellectualist natural law tradition Descartes yet claimed that God did not only establish these immutable laws in nature, but He had also placed the innate ideas of these laws in the human mind. Hence, Descartes was convinced that if we employ our reason correctly, the innate mental notions that are hereby acquired will correspond exactly to their corresponding external motions in nature.⁴⁴

God had, thus, in an axiomatic way implemented His universal laws in nature as well as in the human mind, which rendered these laws of nature the axiomatic status of irreducible mathematical truths. On the basis of the innate presence of these immutable laws in the human mind, the underlying epistemology of Descartes' physics can be described as an intellectual realism. In this regard Descartes obviously agreed with the epistemology of Hugo Grotius' moral-juridical natural law, who believed that men can rationally deduce nature's moral prescripts from their own human nature. If one compares the underlying epistemology of Hugo Grotius' and René Descartes' natural law theories, the first thing that strikes the mind is that Grotius did not elaborate an epistemological method in order to explain for the innate character of these natural moral prescripts. In fact, this was a common attitude amongst thinkers who preceded Descartes' dualistic metaphysics, and who - in accordance with the Scholastic spirit - took the accurate correspondence between mental notions and external reality for granted. Not only did Grotius refrain from making a distinction between subject and object, neither did he perceive a qualitative distinction between rational versus sensible knowledge; which was a crucial element in Descartes' rationalist epistemology.⁴⁵

⁴⁴ Descartes had similarly established the volitional divine origin of his laws of nature in an earlier correspondence to Mersenne on eternal truth in 1630: "Please do not hesitate to assert and proclaim everywhere that it is God who has laid down these laws in nature just as a king lays down the laws in his kingdom. There is no single one that we cannot grasp if our mind turns to consider it. They are all inborn in our minds just as a king would imprint his laws on the hearts of all his subject if he had enough power to do so" (*Letter to Mersenne from 15 April 1630* in CSM, vol. 3: 23).

⁴⁵ Cf. Hochstrasser & Schröder 2003: x; Miller 2001-2: 168. In his *Prolegomena* Grotius, thus, wrote: "[that] the principles of that law [of nature], if only you pay strict heed to them, are in themselves manifest and clear, almost as evident as are those things which we perceive by the external senses" (*Prolegomena* 39). The moral prescripts of Grotius' natural law had hereby obtained an immanent character, because they pertain to human nature itself, and therefore cannot be mistaken as long as men conduct their reason accurately. Therefore, Grotius also established in his *Prolegomena* that the content and limitations of natural law can be equated with the scope of our rational judgement: "[...] it is meet for the nature of man, within the limitations of human intelligence, to follow the direction of a well-tempered

As was mentioned previously in section 4.2.3, Grotius placed human nature at the basis of his natural law theory, which he explicitly distinguished from the voluntaristic divine law.⁴⁶ By contrast, Descartes strongly maintained that his physical laws of nature had originated in God's free will, which view he firstly expressed in a series of letters to Marin Mersenne (1588-1648) from 1630. In response to a question from Mersenne concerning the theological origin of the laws of nature (which were also called eternal truths by Mersenne), Descartes established that the laws of his physics were completely dependent on God's free will.⁴⁷ In a subsequent letter Descartes explicitly refuted the position that the physical laws of nature, or any other category of eternal truths, could have existed prior to the decree of the divine will. Let alone that any type of eternal truth could have existed, if God did not exist!⁴⁸

As can be seen from the previous account, Descartes explained the origin of his laws of nature by means of a divine voluntarism, while he simultaneously agreed with the intellectualist tradition that the knowledge of these laws is immanently available to the human mind on the basis of our innate ideas. At first sight it seems paradoxical for Descartes (as well as many other contemporary natural philosophers) to combine the intellectualist epistemology of their physics with a theological voluntarism. On the basis of the causal efficacy that could be derived from Descartes' physical laws of nature, however, it was very difficult to conceive how God could suspend His own dictates without compromising the order of the universe that He had freely installed. For this reason Descartes made sure to at least unambiguously preserve the freedom of the divine will before creation, in order to protect himself against the theological objections

judgement [...]. Whatever is clearly at variance with such judgement is understood to be contrary also to the law of nature, that is, to the nature of man" (*Prolegomena* 9).

⁴⁶ "The acts in regard to which such a dictate [of the law of nature] exists are, in themselves, either obligatory or not permissible, and so it is understood that necessarily they are enjoined or forbidden by God. In this characteristic the law of nature differs not only from human law, but also from volitional divine law; for volitional divine law does not enjoin or forbid those things which in themselves and by their own nature are obligatory or not permissible, but by forbidding things it makes them unlawful, and by commanding things it makes them obligatory" (Grotius *On the Law of War and Peace* Bk 1, Ch.1, §10).

⁴⁷ "The mathematical truths which you call eternal have been laid down by God and depend on him entirely no less than the rest of his creatures" (*Letter to Mersenne from 15 April 1630* in CSM, vol. 3: 23).

⁴⁸ "If men really understood the sense of their words they could never say without blasphemy that the truth of anything is prior to the knowledge which God has of it" (*Letter to Mersenne from 6 May 1630* in CSM, vol. 3: 24); "Il ne faut donc pas dire que *si deus non esset, nihilominus istae veritates essent verae*; car l'existence de Dieu est la première et la plus éternelle de toutes les vérités qui peuvent être, et la seule d'où procèdent toutes les autres" (AT, vol. 1: 150).

that might be generated by the deterministic implications of his natural philosophy after creation. Prior to the breakthrough of the mechanical worldview, the Aristotelian and Christian providential understanding of the world had thwarted such deterministic accounts of causality in the natural and moral order. During the early modern period, however, the way in which these laws related to their consequences started to deviate sharply from the model of divine creation (even if God was invoked as legislator).⁴⁹

Hence, despite Descartes' efforts, the theological voluntarism on which he grounded his natural philosophy did not counter-act its deterministic consequence in the actual course of nature. The questions that were raised by his natural philosophy went beyond the medieval intellectualist-voluntarist debate, because the theological implications of Descartes' immutable laws of nature superseded the mere implications of an inherent rational order. The question was no longer whether God had been free or restricted in implementing His moral principles in nature, but rather the problem now centred on the static and deterministic nature of the divine will in the everyday course of all physical events that followed after the act of creation.⁵⁰

4.4 SWARTENHENGST'S NATURAL LAW THEORY

4.4.1 The Ethical-Political Tradition at Leiden

During the transgression from late-Scholasticism to humanism the emphasis in the philosophical curriculum would commonly shift from logical to ethical studies, and henceforth politics also became a frequently taught subject at many European universities. In Leiden, however, the exclusive focus lay on the disciplines of logic and physics at the time of the establishment of the university in 1575, and tuition in ethics

⁴⁹ Cf. Daston & Stolleis 2008: 7, 11-12. Even staunch voluntarists like Robert Boyle (1627-97) and Isaac Newton (1643-1727) had to concede that although God might in principle be capable of intervening in the causal sequence of nature, He rarely if ever did so. Hence, this same combination between intellectualism and theological voluntarism also occurred in their natural philosophies (cf. Vermij 1999: 116-119).

⁵⁰ Cf. Vermij 1999: 114; also cf. section 2.2.2, page 78: note 31.

and politics was largely neglected during the first decades of the university's existence. It was only when Petrus Bertius (1565-1629) was appointed for the periods 1600-1607 and 1615-1619 that the subject was firstly taught for several years in a row.⁵¹ At first instance Bertius taught Aristotle's *Ethica Nicomachea* and *Politica*, but later he was asked to expand his classes with other authors. The disputations that were defended under Bertius' supervision were of a very Aristotelian nature, and they clearly paid more attention to Aristotle's ethics than his politics. The few political disputations that were preserved under his name were very literally based on Aristotle's *Politica* and sought no connection with the political reality of the period, which was a typical feature of seventeenth-century academic politics. In contrast hereto, in his personal life Bertius was confronted with the contemporary political climate, since he was dismissed due to his Arminian orientation after Prince Maurits' victory against Van Oldenbarnevelt.⁵²

Hereafter the ethical tuition was taken over by Franco Burgersdijk (1590-1635), an influential Aristotelian, who was one of the few at the time to produce a textbook on politics, entitled *Idea Oeconomicae et politicae doctrina* (1644). In accordance with the Aristotelian tradition Burgersdijk presented man as an *animal politicum* in this work, who united into society in order to protect himself against the dangers of life. In contrast to the political reality of the time, Burgersdijk perceived monarchies as the preferred state structure. The fact that this work was republished twice during the republican rule of De Witt (in 1657 and in 1668) demonstrates that academic politics held little connection with the actual party-factions in the Dutch Republic. Meanwhile G. Jacchaeus (1578-1628) also presided over political disputations in competition to Burgersdijk. When Jacchaeus died in 1628, however, Burgersdijk no longer desired to continue his ethical tuition and instead started to focus on natural philosophy. From this moment onwards the ethical education at Leiden became rather irregular for more than a decade, even if M.Z. Boxhorn (1612-1663) actively continued his political education on a Stoic basis in the philological department.⁵³

⁵¹ Cf. Brockliss 1996: 578-9; Dibon 1954: 59; Wansink 1981: 27-8, 31, 64-7, 117-25. Metaphysics did not even appear on the philosophical curriculum until 1644.

⁵² Cf. Kossmann 1960: 12; Wansink 1981: 67, 117-18, 122-3.

⁵³ Cf. Kossmann 1960: 12-22; Wansink 1981: 65-7, 117-41.

The ethical tuition was again revived when this subject was assigned to Adriaan Heereboord (1614-1661) in 1645. Heereboord was one of the first propagators of Cartesianism in Leiden, although he was an eclectic rather than a Cartesian *pur sang*. Heereboord, who had been a pupil of Burgersdijk, belonged to a new current named the *philosophia novantiqua* that tried to establish a fruitful connection between Cartesianism and Aristotelianism. In Heereboord's ethical disputations in the *Meletemata* his Cartesianism adopted an inferior place in comparison to his eclecticism, which was yet characterised by its anti-scholastic tone. In 1652 the tuition in ethics was transferred to Henricus Bornius (1617-1675), who was such a strict Aristotelian that he left the university in 1659 because he was appointed tutor of Prince William III.⁵⁴

One year earlier Arnold Geulincx had arrived at Leiden after his dismissal from Louvain in 1658, where he was allowed to lecture on the recommendation of Abraham Heidanus. Geulincx did not obtain a permanent appointment to lecture at the university until October 1662, when he was nominated in succession to the deceased Adriaan Heereboord. During his first years as lecturer Geulincx taught logic and metaphysics under the supervision of David Stuart, and when he was appointed as *Professor ordinarius* in August 1665 he was also teaching ethics. After Geulincx's sudden decease in November 1669 Wolferd Senguerd (1646-1724) would obtain permission to provide public tuition in logic, metaphysics, and practical philosophy. Thus, it was the latter who was solemnly responsible for the ethical tuition at Leiden when Swartenhengst was presiding over his ethical-political disputations in the years 1672-1673. Due to Georgius Hornius' previous decease in 1670 (who had been teaching Aristotelian politics and Tacitus) no one else was teaching these subjects at the moment, and hence there was an empty spot at the university in the field of the ethical-political tuition.

In what follows a brief discussion will be made of the content of Geulincx's *Ethics*, in order to thereupon continue with an analysis of Swartenhengst's disputations on natural law. In this latter discussion of Swartenhengst's personal natural law theory the specifically Geulincxian elements in these ethical-political disputations will be highlighted. Thereupon the influence of such ancient authors as Aristotle and Cicero, as well

⁵⁴ Cf. Kossmann 1960: 85-6; Wansink 1981: 140.

as the influence of more modern authors such as Hugo Grotius and René Descartes will be addressed in section 4.5.⁵⁵

4.4.2 Arnold Geulincx's Ethics

In his ethical tuition Geulincx developed a personal and original theory that matched the content of his occasionalistic metaphysics; completed the gap of a Cartesian ethics; and besides, combined various Stoic but also Christian influences despite its overall modern character. When Geulincx fell victim to the plague in November 1669 he had published two ethical treatises: namely, the first part of his complete posthumous *Ethica*, entitled *De virtute et primis eius proprietatibus* (i.e. 'Concerning Virtue and Its Prime Attributes', 1665); and a Dutch elaboration of this earlier ethical treatise entitled *Van de Hoofd-deuchden: De Eerste Tucht-verhandeling* ('On the Cardinal Virtues: A Discourse on Discipline', 1667).⁵⁶ At the time of his decease the most fundamental contributions to Geulincx's philosophy were yet to be published. In 1675 Geulincx's pupil Cornelis Bontekoe (1644-85) edited the former's lecture notes on ethics under the title *Gnothi seauton, sive ethica* ('Know Thyself; or Ethics'); and in 1688 a personal edition of Geulincx's *Physica vera* and *Metaphysica* was also posthumously published under Bontekoe's name. Geulincx's *Metaphysica ad mentem peripateticam* ('Metaphysics towards the Peripatetic Mind') was thereupon published by Johannes Flenderus in 1691, in which an original criticism of the Aristotelian ontology can be found.⁵⁷

⁵⁵ With regard to the previous discussion of Descartes' physical laws of nature and his theological voluntarism, an interesting question in relation to Geulincx's occasionalistic *Ethics* is to which extent he approached the deterministic consequences of Descartes' mechanical physics on the level of morality and the divine will. Geulincx's occasionalism also held important implications for the freedom of the human will; because even though Geulincx confirmed the existence of a free human will, its efficacy now merely expressed itself on the intentional level.

⁵⁶ Cf. Dibon 1959: 116-19; Haeghen vander 1886: 11-18; Otterspeer 2000: 379-80, 393, 427-33; Otterspeer 2002: 55-6; Thijssen-Schoute 1954: 100; Ruler van 2003b: 324-5; Verbeek 1998: 59; Verbeek 2003: 395-6; Verhoeven 1986: 15-16; Wansink 1981: 138-41; Wilson 1999: 129-31.

⁵⁷ Cf. Haeghen vander 1886: 11-18; Ruler van 2003b: 324-5; Verbeek 1998: 59; Verhoeven 1986: 15-16; Wilson 1999: 129-31. Until the start of the eighteenth century some of these works were regularly reissued, but afterwards Geulincx's philosophy sank into oblivion because of its association with Spinozism.

The posthumous publication of Geulincx's *Ethics* consisted of six parts, - in which among other topics he narrated on virtue in general; his four cardinal virtues (diligence, obedience, justice, and humility); the particular virtues in relation to ourselves, God, and other men; and the passions.⁵⁸ In terms of the general framework Geulincx remained indebted to the Cartesian tradition in this work, in which he maintained Descartes' dualism between mind and body in his depiction of the human condition. As was already discussed in Chapter Three, for Geulincx his mind-body dualism was of a much more drastic nature than it had been for Descartes. Whereas Descartes considered mind and body as a composite that interacted through the pineal gland, Geulincx regarded them merely as an interacting union by virtue of God's will.⁵⁹ Hence, it is not my own will but the divine will that sets my body and all the other bodies in the world into motion; and likewise my mind is not directly affected by the external impressions, but it is God who conveys the sensible images from the body into my mind:

“Finally, it is clear, I freely admit, that I do nothing outside myself, that whatever I do stays within me; and that nothing I do passes into my body, or any other body, or anything else”; “And yet, the World that I observe cannot itself impress on me the likeness under which I observe it. The World impels its likeness towards my body and leaves it there: it is the Divinity that then conveys it from my body into me, and into my mind” (ETH: 33; 35).⁶⁰

Geulincx considered God as the father of mankind, although he did not regard Him as a personal God, but rather as a He who had created the world and brought men into their

⁵⁸ Geulincx, thus, deviated from the traditional cardinal virtues – i.e. prudence, justice, fortitude, and temperance -, and he summarily described the operation of his new quartet as follows: “In order for any action to be right, one must listen to Reason (this is Diligence), do what Reason says (this is Obedience), do neither more nor less than that (this is Justice), and not do it for one's own sake (this is Humility)” (ETH: 7).

⁵⁹ Cf. Aster von 1921: 92-5. Geulincx even explicitly criticised Descartes' confidence in the soul's capacity to move the body: “For example, Descartes ascribed to our mind the power to determine motion; with the qualification that we do not know what state our mind will be in. But my hand is moved not at the command of my will, but by consent to it; the will is not a wall, a rock, or suchlike, that can change the direction of motion” (MV: 42, 1.10A).

⁶⁰ As was previously discussed in Chapter Three, Geulincx similarly explained the occasionalistic interaction between mind and body in his *Metaphysica vera*, in which he departed from the axiom that ‘what you do not know how to do, is not your action’ (MV: 35, 1.5). In his *Ethics* Geulincx did not refer to this axiom, but certain passages indicate that he still supported the view that sufficient knowledge is required for an action (cf. ETH: 227).

human condition.⁶¹ In accordance with his occasionalistic metaphysics Geulincx believed that God had created two worlds: one external, which was characterised by motions and parts of extension; another internal, that expressed the subjective interpretation of the external world in the human mind in terms of colours, scents, sounds and so on. Geulincx agreed with Descartes on the fact that he considered God as the primary cause of motion, but he deviated from the latter in the fact that he explicitly and directly held God responsible for every singular movement in the corporeal world.⁶² On the level of the human body Geulincx believed that it was only capable of generating the variety of our thoughts, by virtue of the diverse motions that God attributed to it. The body itself, however, is only the instrument (*causa occasionalis*) of the real cause (*causa vera*) of the modes in my mind, namely, God. It is, thus, the combined medium of body and motion that enabled God to arouse the variation of thoughts in our minds, which view was also propagated in Swartenhengst's inaugural disputation, as was previously discussed in Chapter Three.⁶³

Even though Geulincx considered the human will as free, he hugely differed from Descartes in the fact that he did not believe it possible for the human will to exert any actual causal force upon the body or upon the corporeal world in general. My human condition is, therefore, not dependent on the operation of my own will, but it is the will of God which makes everything happen, - by which he reduced man's participation in the world to the role of 'a mere spectator'.⁶⁴ Besides, Geulincx expanded his view concerning the dependency of the human condition upon the divine will to the physical world also. He, thus, believed that 'all men and things necessarily behave in accordance with God's wishes'; in which regard he largely agreed with the Calvinistic concept of

⁶¹ Cf. MV: 94-6, 3.1-2.

⁶² "By inspecting our condition we also readily learn at the same time what that world is like into which we were sent by Our Father, namely, the world of *Body in motion*, and that He who is Our Father is its mover (ETH 84; also cf. MV: 99-102, 3.4).

⁶³ Notably, however, Swartenhengst himself had not explicitly referred to God in his inaugural disputation, but he only spoke of a 'supreme Motor' (*Motor ille supremus*) who aroused our thoughts on the occasion of the body and its motions: "Hic ineffabili modo Motor ille supremus in scenam prodit; corpus eiusque motum, quem corpori indidit, adhibens ad tot diversos cogitationum modos in nobis suscitandum" (SWH 1670: th.11, ll.5-7); "Here this supreme 'Mover' advances onto the scene in an ineffable way, who is using the body and its motion (which He has placed in the body) to stir up so many diverse modes of thought in us" (Appendix: Translations, 158, th.11; also cf. id. 157-9, th. 10-14). For Geulincx's discussion of the occasionalistic body-mind interaction cf. MV: 38-9, 1.7; 76-7, 2.11.

⁶⁴ "I am but a spectator of the World" (ETH: 37; also cf. MV: 128).

divine providence. As was also the case in Calvinism, however, Geulincx still believed in the existence of a free human will, and he actively tried to preserve the importance of its intentional value in his *Ethics*. Although humans could no longer physically disobey God in Geulincx's divinely predestined worldview, they are yet obliged to agree with God's law and reason on the level of their intentions. When humans allow their will to actively agree with God's law and reason this is called virtue; while if they refuse to obey His law on the level of their intentions this is called vice:

"All men, in fact all things, necessarily behave in accordance with God's wishes. The only difference is that some men are obedient to the Law that God has given us, that is, Reason, and they are said to be Men of Virtue; while other men refuse to obey the Law, and these are the Wicked" (ETH: 16).

In this quotation Geulincx, thus, also explicitly equated the law of God with reason, which is a connection that frequently reoccurred throughout his *Ethics*.⁶⁵ This repeated interconnection between the law of God and reason certainly provided Geulincx's ethical theory with a distinctly modern taste; and it also placed him at a distance from the Protestant emphasis on mankind's total depravity in their predestined condition.⁶⁶ Geulincx expected his fellow human beings to make an active attempt in their lives to agree with God's law and reason. This agreement was of course only of an intentional nature, but it is the prerequisite for a virtuous life that was rewarded by the friendship with God; happiness; peace; and mutual friendship amongst virtuous men.⁶⁷ Hence, it is

⁶⁵ "Virtue is the Love of Reason, and not strictly speaking, or at least not so precisely speaking, the love of God as He is in Himself" (ETH: 15). In his *Metaphysica vera* Geulincx also described the amelioration of our knowledge of God as the highest intellectual achievement in life: "There can be no greater pleasure than when we begin to understand something about God, and with such clarity that we can even communicate it to others, as I am doing here" (MV: 107, 3.6). This former statement is very reminiscent of Spinoza's *Ethica*, for whom the love of God was also the highest principle of knowledge (Ruler van 2002: 19; id. 2006: xxvii, xxxi, xxxv).

⁶⁶ Geulincx seems to have been more optimistic concerning man's capacity to discern reason's prescripts than had originally been the case in Protestant theology: "This is because Reason is an image of the divine that we have within ourselves [...] Your own stains cannot besmirch Reason itself" (ETH: 14).

⁶⁷ As the first reward of virtue Geulincx established the friendship with God; the additional rewards being happiness; peace; instruction and discipline; dignity; friendship with virtuous men; the accidental reward; and finally virtue itself as virtue's ultimate reward (cf. ETH: 127-49). Although Geulincx considered happiness as a reward of virtue, this mainly consisted in the happiness that an individual can rationally derive from his or her obedient love to God. In agreement with Calvinistic theology, Geulincx did not believe that our ethical behaviour will change anything in the predestined course of nature, in the sense that happiness will not automatically befall us once we act virtuously: "Happiness should not be

my moral obligation to allow my will to actively coincide with God's will; although certain occasions may remain when my will does *not* coincide with God's will, such as for example when I am paralysed. For these situations Geulincx imposed the ethical axiom that 'when it is not in my power to do anything (which are strictly speaking all situations), I should not want anything':

"It is clear to all men that the summation of Ethics is contained in this saying: *wherein you have no power, therein you should not will* [...], which is the origin of Ethics, in fact even the supreme principle of Ethics, from which you can easily deduce every single one of the obligations that make up the scope of Ethics [...]" (ETH: 178).⁶⁸

With this ethical axiom Geulincx did not mean to say that humans should adopt a passive attitude in life, but he intended for them to actively resign themselves to their human condition. In regard of the obligations that made up the scope of his ethics, Geulincx formulated seven of them: to accept death; not to commit suicide; to live healthily; to learn a profession; to work with devotion; to take leisure from time to time; and to not curse the day you were born.⁶⁹ Throughout his *Ethics* Geulincx propagated a selfless attitude for human beings: 'who should never be guided by self-love or the passions, but merely by the obedience to reason and God'.⁷⁰ This ethical objective was most strongly expressed in the cardinal virtue of humility, which Geulincx identified with the 'disregard which humans held for themselves out of the love of God and reason'.⁷¹ It is, therefore, not surprising that Geulincx identified the law of reason as a law that does *not* serve men for their own convenience:

summoned, but neither should it be kept away: one must await it, not strive for it. When it thrusts itself upon you, you may embrace it; when God brings it to us, it is right to make use of it; it is fitting to accept what He sends us" (ETH: 61; also cf. ETH: 63).

⁶⁸ Also cf. MV: 44, 1.11; Ruler van 2002: 18-26; Verbeek 1998: 60. The original quotation in Latin reads as follows: "*Ubi nihil vales, ibi etiam nihil velis*" (Land 1891-3: 155).

⁶⁹ Cf. ETH: 38-57.

⁷⁰ "[W]e must follow what Reason dictates (for if we do not follow what Reason dictates, but what Passion urges, our work will not be good); [...] and finally, we must not be led by care of ourselves (for if we have care of ourselves, we do not what Reason dictates but what Self-Love dictates, that is, what love of oneself dictates)" (ETH: 167).

⁷¹ Since it would be insanity if human beings positively despised themselves, Geulincx interpreted humility merely in a negative sense: "Humility therefore calls for *negative* disregard of oneself, meaning that one should not labour concerning oneself, not have a care of oneself, and place no consideration of oneself ahead of a Love of Reason" (ETH: 30; also cf. ETH: 29).

“For since Reason, which we love through Virtue, is a *law* that has been given to us in particular and to the human race in general, it is by its very nature not something intended to be of benefit to us, nor does it regard our utility and convenience (for if so it would be a privilege rather than a law)” (ETH: 167).

One could almost say that, according to Geulincx, mankind had to choose slavery to God and reason in order to be truly free; because life would become genuine slavery if one merely worked for one’s personal interests.⁷² The selfless aspects of Geulincx’s ethics deviated sharply from the emphasis on the importance of self-preservation in early modern natural law theory (which also more strongly appeared in Swartenhengst’s disputations). Although Geulincx’s ethical theory was completely opposed to the Hobbesian emphasis on self-preservation, his views were likewise grounded on an exceedingly rationalist and naturalist background.⁷³ Geulincx, thus, believed that ‘the same reason that reveals to us the truths of physics also enjoins us in ethical matters’; and even more, ‘that a proper understanding of the physical aspects of the human condition is a prerequisite for our understanding of ethical matters’.⁷⁴ Despite his emphasis on the natural and rational aspects of morality, Geulincx never developed a personal concept of natural law. Yet his interpretation of the law of reason closely reminds the reader of the traditional concept of an intellectual natural law.⁷⁵

⁷² “The Fruit of Obedience is Freedom. He who serves Reason is a slave to no-one, but rather on that account he is completely free” (ETH: 24).

⁷³ “And just as I receive these things from Nature (as I said), so I also accept and treat of them naturally. I intermix with them nothing from sacred sources; everything comes from Reason [...]” (ETH: 7).

⁷⁴ “For the Reason that discloses to us the truths of Physics is the same reason that enjoins on us Ethics” (ETH: 22); “Moral and Ethical matters presuppose natural and Physical matters; for the concept of the human condition is Physical, and without knowledge of Physics nothing can be stated either truly or falsely of moral matters, as the whole of Ethics and all obligations are derived from inspection of oneself” (ETH: 183). Especially in his discussion of the seven moral obligations, Geulincx repeatedly placed a strong emphasis on the state of the body and its surrounding physical components in his description of the human condition: “This is because, unless I provide the wherewithal to secure food, or to shelter myself from the inclemencies of the weather (which is the point of the Third Obligation), the Fourth Obligation will not come into force. A condition of life is to be secured which may suffice to maintain the body in good order” (ETH: 48); “For if the incessant collisions of bodies in this world damage some part of *my* body (as can all too easily happen), [...] I necessarily feel pain” (ETH: 54).

⁷⁵ The following description of the law of reason, for example, is strongly reminiscent of the Thomistic concept of natural law: “By this I mean that when we praise the nature of God and His attributes, we thereby praise the law and Reason that He has implanted in us” (ETH: 174). Only once did Geulincx explicitly mention natural law in his *Ethics* in a reference to Aristotle, whence he indirectly compared the law of reason with natural law as opposed to human law: “For in general, the dictates of Reason are easily obscured, clouded, and confused with those which are established by precedent and laid down by human laws. This leads that ever-popular Philosopher (Aristotle, *Ethics* I: 3) to complain that, “in things that are honest and just, which are the subject-matter of Ethics, there is so much dissent and so many errors that

Unlike Swartenhengst, Geulincx never elaborated his ethical views into a political theory; which can probably be explained from the fact that his ethics ruled out the possibility of independent human action in the external world. Apart from the mere intentional efficacy of human freedom, Geulincx besides also indicated: ‘that we are *only* bound to God and reason in our moral obligation, and never is another man in him/herself worthy of this honour’.⁷⁶ Geulincx’s primordial focus upon man’s moral obligation towards God and reason made it difficult to translate his views into a political theory, as was yet attempted by Swartenhengst. Some moral prescripts in relation to other human beings can, yet, still be derived from Geulincx’s *Ethics*: In his discussion of the ‘particular virtues touching upon other men’, Geulincx maintained that these are our equals (or in Christian terms our *neighbours*). And because we share the same obligations towards God with them, we should hold them in an equal place with ourselves; value them as ourselves; and bring aid and sustenance to them, so that we can help them fulfil their obligations.⁷⁷ Although Geulincx’s main focus remained with man’s obligation towards God and reason, he had hereby yet also established a social and altruistic code of behaviour amongst humans in their relations with one another. In his *Metaphysica vera* Geulincx, thus, indicated that men should not continue to only dwell upon their knowledge of God within themselves; but, in fact, they should also actively gather in society as an additional means to fulfil their obligations:

“But we must not linger unduly over this pleasure [i.e. our (incomplete) understanding of God], whilst there is so much else to be done: to live; beyond this, to study how we may sustain this life; and to have society with other men, to the end that we may fulfil our obligations.”⁷⁸

for the most part they seem to be established by human rather than natural law” (ETH 23). Geulincx likewise indicated that ‘the principles of reason are generally known to us as *common notions*’, which view is obviously reminiscent of the innate character of an intellectual natural law (cf. ETH: 191-2).

⁷⁶ “One of Reason’s precepts is this: *Beyond God and Reason, all things must be despised*; hence, no-one can love Reason unless he loves Reason alone” (ETH: 17). “For only God, or Reason, can be the end-for-which of obedience (I mean the ultimate end; for this alone is in the proper sense an end); and it is never right for a man to be dignified with that honour” (ETH: 202). Geulincx yet indicated that another human being can be a subordinate end-for which, such as when we obey our parents or the civil magistracy, which is simultaneously dictated by God to whom we offer our overriding obedience (cf. ETH: 202).

⁷⁷ Cf. ETH: 91-3.

⁷⁸ MV: 107, 3.6.

4.4.3 Summary Description of Swartenhengst's Disputations on Natural Law

In the previous section on the ethical-political tradition in Leiden it was already mentioned that seventeenth-century academic politics established no connection with the actual political climate of the period. Thus, the monarchy was generally considered as the preferred regime in academic political theory, despite the actual republican state structure in the Dutch Republic. Swartenhengst supervised his disputations on natural law in a period of political disquiet, since the years 1672-1673 were particularly disastrous for the Dutch Republic on account of the war against France, England, and Munster. Despite the turbulence of the period Swartenhengst's disputations made no reference to the actual political situation, in which regard the only two noteworthy comments are the following: 1. 'that disturbers of the public order found guilty are therefore rightly punished'; 2. 'that states should be satisfied with their own right, not striving after that of another.'⁷⁹ The second quotation indicates that Swartenhengst was opposed to expansionistic regimes, which probably matched his attitude towards the actual political situation of his time. This latter statement 'that states should not infringe the right of another' might, nevertheless, also have been derived from Grotius' *De iure belli ac pacis*. Besides, it agreed with the humble and selfless spirit of Geulincx's *Ethics*, whose influence is omnipresent in these disputations.⁸⁰

If the essentials of Swartenhengst's natural law theory are summarized, one can commence with the fact that he based his natural law theory on an intellectualist disposition. More specifically these disputations are closely interconnected with the

⁷⁹ "Ex posteriori haec deducitur conclusio: perturbatores reipublicae culpae reos et propterea merito puniendos esse" (SWH NL1: th.8, ll. 24-5); "From the latter principle this conclusion is derived: that disturbers of the public order found guilty are, therefore, also rightly punished" (Appendix: Translations, 168, th.8). "Hac in parte proinde iterum *rationi* obtemperantes, quod proprio suo iure contentae, nec alterius cuiusquam ullo modo affectantes, ulteriori in alias imperio ac dominatione abstinerunt" (SWH NL2: th.13, ll. 5-7); "Hence in that respect obeying reason again, because they [i.e. states] were satisfied with their own right, not in any way striving after anything of anybody, they abstained from the dominion and political rule in other states" (Appendix: Translations, 177, th.13).

⁸⁰ Grotius established that it was prohibited by natural law to seize someone else's property, and in the public sphere states could only justly commence a war against another nation in order to defend themselves, recover property, or on the basis of lawful punishment: "Thus property, as now in use, was at first a creature of the human will. But, after it was established, one man was prohibited by the law of nature from seizing the property of another against his will" (Kelsey 1925: Book 1, Ch.1, §10); "The justifiable causes generally assigned for war are three, defence, indemnity, and punishment, all which are comprised in the declaration of Camillus against the Gauls, enumerating all things, which it is right to defend, to recover, and the encroachment on which it is right to punish" (Kelsey 1925: Book 2, Ch.1, §2).

Cartesian-Geulincxian epistemology, which already becomes apparent at the start of the first disputation on natural law. Here Swartenhengst stated that ‘we examine the existence and essence of external objects by bringing them before our intellect, and we understand them according to their unique and immutable essence without adding anything from ourselves’.⁸¹ Swartenhengst thereupon continued this disputation by affirming the exact correspondence between natural law and reason, which view he may have derived from Geulincx’s *Ethics*, who similarly equated the law of God with reason.⁸² Importantly, however, Swartenhengst did not entirely discard the role of the senses, as he maintained: ‘that we shape cognition by combining sense perception with reason’. Swartenhengst hereupon continued this sentence by stating that ‘the knowledge of things as they are in themselves is, nevertheless, based *on the occasion* of the thing of which it is the cognition’.⁸³ Most probably the term ‘occasion’ here referred to Geulincx’s occasionalism, since the latter believed that the external objects are known by virtue of the corporeal occasion on which God presented them to the human mind.

Later on Swartenhengst again based himself on the Cartesian-Geulincxian epistemology when he claimed: ‘that natural law can be easily recognised when we free ourselves from our prejudices and desires’, - a passage that also occurred in the annotations to

⁸¹ “Res quasdam extra nos in mundo supponentes, earum essentiam et existentiam investigare, nobis quotquot rationales dicimur haud indignum existimamus, ut illae sic ad intellectum nostrum relatae nostra de iis perceptio verane sit an falsa evidentem appereat” (SWH NL1: th.1, ll. 7-10); “Since we presuppose certain objects outside ourselves in the world, we believe it not at all unworthy to investigate their essence and existence - to the extent we call ourselves rational - so that, these having been brought before our intellect, it may become clear whether our perception of them is true or false” (Appendix: Translations, 164, th.1). Also cf. SWH NL1: th.2, ll. 16-25; Appendix: Translations, 165, th.2.

⁸² “Quapropter hanc rem rite perpendendo rationem non quid a *lege naturae* diversum esse statuimus: ipsa enim *naturae lex ratio est*; cuius dictamina omnes itaque actiones nostrae, quatenus ut diximus non brutales, sed cum iudicio a nobis peraguntur, respiciunt” (SWH NL1: th.6, ll. 30-1); “Therefore, by duly researching this thing we can establish that reason is not something different from the *law of nature*. Indeed, *reason itself is the law of nature*, whose prescriptions all our actions – to the extent, as we said, that they are not brutish but are taken with judgement by us –, therefore, take into account” (Appendix: Translations, 166, th.6).

⁸³ “Sic sensum cum *ratione* conciliamus, hoc est cognitionem non alia modo formamus, quam prout illa occasione istius rei cuius est cognitio determinatur” (SWH NL1: th.1, ll. 10-11); “Thus do we connect sense perception with *reason*, that is, we form cognition in no other way, than insofar as it is determined by the occasion of this thing of which it is the cognition” (Appendix: Translations, 164, th.1). The view that natural law had an empirical omnipresence had still been completely unambiguous in Grotius’ writings. And it may also have been supported by one of Swartenhengst’s students, since one of the corollaries established ‘that there is no falsehood in our perceptions’ (cf. SWH NL1: c.2, l. 23; Appendix: Translations, 171, c.2; Hochstrasser & Schröder 2003: x). Although this latter statement does not straightforwardly agree with Descartes (who generally distrusted our knowledge from the senses); it yet agreed with the Cartesian view that it is the human will (that falsely offers its consent to certain perceptions), which is to be held responsible for our mistakes (cf. *Meditations IV*).

Geulincx's *Ethics*.⁸⁴ This sentence is by no means the only literal overlap between Swartenhengst and Geulincx; another fragment that was, for example, almost literally copied from Geulincx's *Ethics* was Swartenhengst's definition of reason:

“What *reason* is, therefore, is well and abundantly known to all, and thus far there is no need for what it is to be said, since saying what it is would be to explain it. [...] And so *reason* is sufficiently clear and obvious for anyone who pays attention. For it is something belonging to ourselves which we carry around with ourselves while thinking [...].”⁸⁵

These overlaps confirm the current interpretation in the secondary literature that academic disputations frequently were a demonstration of the arduous copying and pasting skills of the students. In the case of the first two disputations on natural law the references to Geulincx are exceptionally frequent; which may have been related to the fact that these were defended by Simon Hoet, who still disputed under Geulincx's supervision some years earlier. From the fact that Geulincx's philosophy figured most prominently and explicitly in the disputations that were defended by Hoet, it may be concluded that the students added their personal stamp to these disputations, that were a work of mutual effort between *praeses* and student.⁸⁶ As yet, Swartenhengst himself

⁸⁴ “Exuenda igitur sunt praeiudicia et cupiditates, si *rationis* mandata seu dictamina exacte internoscere et exequi animus sit; tum quasi sponte nuda et simplex eorum veritas nobis erit obvia” (SWH NL1: th.13, ll. 9-11); “Thus, prejudices and desires are to be set aside, if there is to be hope of exactly distinguishing and following the commands and prescriptions of *reason*. Then, the naked and simple truth of these will become clear for us almost by itself” (Appendix: Translations, 170, th.13). A similar fragment occurred in the annotations to Geulincx's *Ethics*: “There is nothing that veils Reason from us other than our prejudices and desires; Reason by itself is clear and simple” (ETH: 193).

⁸⁵ Appendix: Translations, 166, th.4-5; “Quid igitur sit *ratio* satis superque omnibus notum est, adeoque dici non opus quid illa sit, nam dicere quid sit declarare est [...] Sic itaque cuilibet attendenti *ratio* satis clara et manifesta est; est enim aliquid nostrum quod nobiscum rationantes circumferimus [...]” (SWH NL1: th.4, ll. 10-11; id. th.5, ll. 23-24). A similar fragment occurred in the annotations to Geulincx's *Ethics*: “And therefore what it [i.e. Reason] is must not be said; for to say what something is, is to make it clear; but what is already sufficiently known and clear must not be clarified any further. Reason is so clear to us because it is something of ours, which we carry around with us all the time, and which we can look at whenever we are so minded [...]” (ETH: 178). In theses 15 and 16 of the first disputation on natural law additional fragments occurred (concerning the obligation to follow a bandit's command as long as this agrees with the law on preserving life, as well as the positive obligation to honour one's parents and the negative obligation to never violate them), which are also quite literally copied from Geulincx's *Ethics* cf. SWH NL1: th.15, ll.2-5; id. th.16, ll. 16-17; ETH: 201-2.

⁸⁶ For Simon Hoet's defence of various disputations under Geulincx's supervision cf. ‘Series eorum quae hoc volumine continentur’ in *Arnoldi Geulincx annotata maiora in Principia Philosophiae Renati Descartes: Accedunt opuscula philosophica eiusdem auctoris* (1691). On the matter of the authorship of academic disputations cf. section 1.3.2 in this dissertation.

will also have intensively contributed to the content of these correlating disputations, since the topic of natural law had neither been addressed by Arnold Geulincx, nor did it appear in the public philosophical curriculum. On this account it may be assumed that Swartenhengst will have familiarised his students with the general outlines of a Cartesian-Geulincxian natural law theory in his private colleges.

In terms of his intellectualist disposition Swartenhengst had, thus, equated natural law with reason; and he described reason ‘as an infallible and immutable standard’ in agreement with the overall Cartesian optimism concerning man’s rational capacities.⁸⁷ In the third ethical-political disputation *De origine societatis humanae* that was defended by Adrianus Moll, however, a slight nuance is made concerning the rational comprehensibility of natural law. The latter thus indicated: ‘that it still takes a lot of energy and sweat from humans to rationally apprehend the resources that are needed for a life according to the law and without harm’.⁸⁸ This view can probably be related to the Calvinistic framework in the Dutch Republic, which believed that humans were sinful creatures that are incapable of discerning God’s purposes in the world. Geulincx, who had converted to Calvinism upon his arrival in the Dutch Republic in 1658, likewise indicated that ‘men have to labour and sweat under the office of virtue’; although he still believed it possible for them to successfully follow reason’s dictates.⁸⁹ The peaceful continuation of human society is the reward of the accurate rational apprehension of the resources that are needed for a life in accordance with natural law:

⁸⁷ “[I]nfallibile ac immutabile illud κριτήριον, quo quaelibet occurrentia ad intellectum nostrum referimus, earumque veritatem menti sic infixam contemplamur: nec hoc tantum: sed quoniam scientiae nostrae incrementum in continua successione consistit” (SWH NL1: th.3, ll. 28-31); “This criterion, by which we refer all occurrences whatsoever to our intellect, is infallible and unchangeable, and by it we contemplate the truth of these things thus fixed in the mind. And not only this, but since the growth of our knowledge consists in continuous succession, we gradually deduce from this knowledge further consequences by truth” (Appendix: Translations, 165, th.3).

⁸⁸ “[N]eque in adulta etiam aetate externa illa, quibus in vita legitime ac sine noxa degenda opus habet homo in se deprehendere valet; cum propriis solummodo viribus omnia vitae subsidia aut rite inquirere, aut commode ad consentaneum sui usum parare nequeat. ad horum igitur omnium consummationem et procurationem, quaenam non vires et industria requiruntur et sudant?” (SWH NL3: th.2, ll. 31-3); “Not even in acquired adulthood is man able to apprehend these external things in himself, which have a function in a life that must be led according to the law and without harm. Since he would not be able to rightly seek after all the aids for life, or to make them ready for his use, unless with the proper resources. Thus, for the completion and procurement of all these things, what energy and activity are required and do they not sweat?” (Appendix: Translations, 179-80, th.2).

⁸⁹ “Virtuous men may often labour and sweat blood under an office of Virtue” (ETH: 187). Even though Geulincx believed that it took a great effort from men to behave rationally and virtuously, he still believed it possible for them to follow reason’s dictates: “This is evident, for our actions are as it were a mirror of Reason and God’s law” (ETH: 175).

“In fact this law or *reason* is a communal prescript, sufficiently known to each (provided that it is rightly noted), and therefore set up for the communal profit and advantage, serving all of society for its conservation in order that it exists uninjured.”⁹⁰

Swartenhengst thus considered natural law as innately available to human beings, and in accordance with Geulincx he believed that we are absolutely obliged to its dictates.⁹¹ The view that the principles of natural law are innately available to the human mind was an originally Stoic notion, which had continued throughout history from Cicero to the Church Fathers to Thomas Aquinas. When Descartes had subsequently elaborated his metaphysics and physical laws of nature, he similarly grounded them on an innate intellectualism. Whereas Descartes had refrained from extending the validity of these innate truths to the moral domain; Swartenhengst and Geulincx, in fact, did extend the application of the rationally deducible laws of nature to the moral domain:

“Thus, through this attribute (namely *dictating*) *reason* or the law of nature extends itself as far as possible, as much with physical things, as with those which concern both ourselves and other humans beyond us”.⁹²

A remarkable aspect of Swartenhengst’s natural law theory is that he made no reference to God as the divine legislator of this law, which might have been related to the

⁹⁰ Appendix: Translations, 173, th.4; “Lex enim haec seu *ratio* commune praeceptum est, cuique satis (modo rite attendat) perspectum, communi propterea commodo atque utilitate statutum, totique societati ad sui conservationem ut incolumis existat inserviens” (SWH NL2: th.4, ll. 4-7). Also cf. SWH NL1: th.9, th.11; id. NL2: th.2, th.5-6, th.9; id. NL3: th.2-4, th.6-7.

⁹¹ “Thus, the first and essential characteristic of natural law is to *dictate*, it is that which contains for each and all circumstances the rules and prescriptions, which rules we declare to be nothing if not certain common notions planted in our minds by nature” (Appendix: Translations, 167, th.7); “Legis igitur naturalis prima et essentialis proprietas est *dictare*, hoc est quod in toto et singulis circumstantiis contineat regulas et dictamina quaedam, quas regulas non nisi communes quasdam notiones esse dicimus a natura mentibus nostris inditas” (SWH NL 1: th.7, ll. 5-7). Geulincx also established dictate as reason’s first attribute; which was thereupon followed by law, rule, and task: “Reason has these four attributes. First, there is *dictate*; secondly, *law*; thirdly, *rule*; and fourthly, the *task* that is enjoined on us” (ETH: 190).

⁹² Appendix: Translations, 167, th.7; “Hoc igitur attributo (*dictando* scilicet) *ratio* seu lex naturae quam latissime sese extendit, utpote etiam tam ad res physicas, quam ad illas quae nos metipsos, ac alios extra nos homines concernunt, et respectum ad illos dicunt” (SWH NL1: th.7, ll. 9-11). Also cf. SWH NL1: th.3, ll. 32-2; “And thus we declare that *reason* is to be the foundation of everything in the speculation upon truth, which we will then attempt to extend even to the practical concerns of life, or to all circumstances of our actions [...]” (Appendix: Translations, 165, th.3). A similar passage appeared in the annotations to Geulincx’s *Ethics*: “For Reason extends by the dictate as much to physical things as moral things [...]” (ETH: 190; also cf. id. 183, 190, 198, 200).

prescribed distinction between the theological and philosophical education at Leiden. Just as Geulincx had done in his *Ethics*, Swartenhengst thus unambiguously based his concept of natural law on purely rational and natural grounds:

“For it [i.e. natural law] is that, which the nature of things had brought forth along with mankind itself, what natural reason establishes between all humans, and what is common to all men.”⁹³

Only in the corollaries of the third disputation on natural law a concise reference to God appeared, who is described ‘as *non*-universal’ and ‘His essence as most simple’. Thereupon the immortality of the soul was deduced from the fact ‘that no substance can be naturally reduced to nothing’, - which is a crucial element of the Christian doctrine that also played an important part in Descartes’ *Meditations*.⁹⁴ In the corollaries to his inaugural disputation from 1670 Swartenhengst notably included the Geulincxian proposition: ‘that even though we cannot but obey God on the corporeal level, it is important that we should still also actively obey His law on the level of our intentions’.⁹⁵ In his disputations on natural law, however, Swartenhengst did not once refer to divine law or Revelation; and instead he established the following axiom as the basis of his natural law theory:

⁹³ Appendix: Translations, 168, th.9; “Est enim illud quod cum ipso genere humano rerum natura prodidit; quod naturalis ratio inter omnes homines constituit, et quod toti humano generi commune est” (SWH NL1: th.9, ll. 32-2). When Swartenhengst discussed the principles of his natural law theory in the previous thesis, he similarly indicated that these had their foundation in nature and reason: “These conclusions and principles from our investigation, and that our relations with other humans have their foundation in nature itself or the prescription of reason, we believe to be irrefutable.” (Appendix: Translations, 168, th.8; also cf. SWH NL1: th.8, ll. 25-8).

⁹⁴ Cf. Appendix: Translations, 183, c.1-2, 9-10; also cf. SWH NL3: c.1-2, ll. 11-14; c.9-10, ll. 3-6. In his summary of the six meditations Descartes likewise indicated that ‘the body as a category of species can never be destructed’, in order to thereupon conclude that the human soul (in contrast to the human body) is immortal: “Et ensuite, afin que l'on remarque que le corps, pris en général, est une substance, c'est pourquoi aussi il ne périt point [...] D'où il s'ensuit que le corps humain peut facilement périr, mais que l'esprit, ou l'âme de l'homme (ce que je ne distingue point), est immortelle de sa nature” (‘Abrégé des Six Méditations Suivantes’ in *Les Méditations Métaphysiques* in Bridoux: 263).

⁹⁵ “All people and all things necessarily obey God. On this account the proposition to obey Him is in itself useless, but the proposition to obey His law is good” (Appendix: Translations, 163, c.20; also cf. SWH 1670: c. 20, ll. 27-8). In accordance with Geulincx’s predestined occasionalistic worldview, Swartenhengst likewise maintained that ‘whatever happens, happens necessarily’ (cf. Appendix: Translations, 183, c.5; SWH NL3: c.5, l. 23).

“That anything, to the extent that it remains of its own in the same state, must therefore from our part not be disturbed from this state. Further we will deduce that reason can only have its foundation in the mutual love among themselves of individuals.”⁹⁶

Just as in Geulincx’s *Ethics*, the concept of love comprised an important element throughout Swartenhengst’s disputations. The duty of love towards others can be fulfilled by uniting oneself with others in social life, which is a natural need that also occurs in the other animals:

“That is not surprising, as the other animals are helped by a reciprocal society and enjoy it, and man himself rarely or hardly ever leads a solitary life, so that he also longs for and desires society, guided by nature’s very lead and the prescription of reason.”⁹⁷

It is in the social life that the diverse talents which are randomly distributed among humans can be shared and united, since each man is suited for a different job to be done. And hence men unite themselves with others, so that they can acquire the necessary goods for living by sharing their talents. Besides, humans also have a genuine need for society, which allows them to live peacefully by virtue of the recognition of the mutual bond and friendship among individuals.⁹⁸ Hence, without love the relation of humans between each other would not be correctly identified, according to Swartenhengst, and everything would decline in reciprocal destruction and necessary damage.⁹⁹

⁹⁶ Appendix: Translations, 165, th.3; “quod quaelibet res quantum in se est manet in eodem statu, nec propterea nostra ex parte de eo deturbandam esse; quod non nisi in mutuo singulorum inter se amore fundamentum suum habere posse imposterum deducemus” (SWH NL1: th.3, ll. 3-5).

⁹⁷ Appendix: Translations, 168-9, th.10; “quid mirum igitur si caetera animalia mutua societate iuventur atque gaudeant, et ipse homo vix aut ne vix quidem solus vitam ducit, ut etiam societatem ipso naturae ductu ac rationis dictamine affectet et desideret” (SWH NL1: th.10, ll. 14-16; also cf. SWH NL2: th.9; id. NL3: th.1-3, th.5-7).

⁹⁸ “[Q]uae communicatio et mutua distributio non nisi in vita sociali fundamentum suum habere valet, inde enim est et ita se res habet, ut alter alterius ope et auxilio, si non in omnibus saltem in aliquibus hoc vel isto tempore indigeat, ut omnes inter se quodammodo devincirentur, ne vinculum illud humanae societatis amor nempe et amicitia ullatenus dissolvatur” (SWH NL3: th.6, ll. 26-1); “This sharing and mutual distribution [of talents] is only capable of having its foundation in social life, which therefore indeed exists and in this way the matter stands. So that one would need the resource and help of the other, if not in all matters at least in some, either now or at some other time, so that everybody was tied up amongst each other in one way or another, lest this bond of human society not to say the love and friendship would be dissolved” (Appendix: Translations, 181-2, th.6).

⁹⁹ “Hisce mutuus illae inter omnes amor ac concordia excitatur augeturque; sine quo singulorum inter se consensu et amore nullus hominum status tuto subsistere, sed quoniam quicquid fit aut peragitur mere ex passione procedit, non raro alterum in alterius ruinam ac perniciem contendere necessum est” (SWH

Apart from his focus on the importance of love between humans for the successful continuation of society, however, the first part of Swartenhengst's axiom simultaneously emphasised the preservation of the physical state of the individual, a statement that repeatedly reoccurred throughout all three disputations on natural law:

“[...] may it remain in this state in which it is, nor should it be driven away from it in as much as it is on our part”.¹⁰⁰

At first sight this axiom may seem reminiscent of Thomas Hobbes' political theory, which mainly focused upon man's self-preservation. However, if one looks at Swartenhengst's Cartesian-Geulincxian background (both of whom were no great fans of Hobbes), this sentence may also have referred to Descartes' first law of motion, as will be further discussed in section 4.5.2. In the description of the seven moral obligations in his *Ethics* Geulincx had, besides, also placed a strong emphasis on the state of the body and its surrounding physical components.¹⁰¹ From his axiom that humans should not be driven away from their position, Swartenhengst thereupon derived that 'they should turn to everything that concerns their wellbeing and preservation, and hold away from everything that leads to their harm or destruction'. For the purpose of distinguishing these features in external reality men can only revert to the aid of reason or natural law, by which the relation between humans is rightly identified, so that they are not driven away.¹⁰²

NL2: th.9, ll. 3-6); “By these things mutual love and harmony amongst all are aroused and increased. It is necessary that without this agreement of individuals between each other and love no state of humans safely remains, but indeed not rarely one contends for the destruction and death of the other, because whatever becomes or is done proceeds on the basis of pure passion” (Appendix: Translations, 175-6, th. 9). Also cf. SWH NL2: th.2; id. NL3: th.2, th.6, th.8.

¹⁰⁰ Appendix: Translations, 174, th.5; SWH NL2: th.5, ll. 17-18. Also cf. SWH NL1: th.3, th.8; id. NL2: th.2; id. NL3: th.5. The phrase ‘to the extent that it is in our own power’ might also have referred to Geulincx's occasionalism, in which all events in our life are in every respect subjected to the divine will.

¹⁰¹ Cf. section 4.4.2, p. 155, n. 74 in this dissertation.

¹⁰² “[Q]uod rationalis creatura ita est condita, ut illa quae in emolumentum vel in detrimentum existientiae suae cedunt (modo rite attendat) satis internoscat, ex quibus tum sic perceptis (cum nulla res ex se tendat in sui destructionem) quilibet ad omne id quod sui conservationem et incolumitatem concernit convertatur, ab omni eo quod noxam et interitum molitur abarceatur, quod sola *ratio* seu lex naturae praestat” (SWH NL1: th.9, ll. 3-7); “[...] that a rational creature is so endowed, that it sufficiently distinguishes the things working to the advantage or disadvantage of its existence (provided it pays due attention), and when these have been perceived, (since nothing by itself longs for its own destruction), it will turn to everything that concerns its preservation and wellbeing, and hold away from anything that leads to its harm and destruction; which alone reason or the law of nature can do” (Appendix: Translations, 168, th.9). Even though Descartes was sceptical concerning the validity of our sensible

Thus, the preservation of both the entire society and the individual played an important role in Swartenhengst's natural law theory. Besides, he was rather pessimistic about man's helpless condition in a non-political state, where natural law's precepts are not yet observed.¹⁰³ Swartenhengst, thus, advised men to unite themselves into a political society. Here they should refrain from acting on the basis of such passions as strife, hatred, and fear, which will merely lead to its destruction:

“Therefore, all strife, hate, and fear (which derive their origin from these alone) must be as far as possible removed from this, lest nothing from our part prevents it [i.e. society] from continuing any longer in this state of union.”¹⁰⁴

Once the obligation to natural law is accurately observed in the social life, Swartenhengst held a positive view on its consequences and effects for both the individual and the community. Thus, he believed that our personal wellbeing was naturally linked to the preservation of the other members of society, in which connection human society remained in good repair.¹⁰⁵ According to Swartenhengst, this communal good coincided with the fact that no one should be deprived of his or her

impressions, he yet believed that these allowed men to distinguish between the things that are advantageous and disadvantageous to their human condition: “The perceptions of the senses do not teach us what is really in things, but merely that whereby they are useful or hurtful to man's composite nature” (*Principles* II. 3 in Miller: 40).

¹⁰³ “Quid enim politica aliud est, quam ars, stimulus et instigatio illa, qua homines inter se (ne vel statim postquam in lucem prodire propriae indigentiae causa, vel imposterum ex inopinato, aliorum vi et insidiis opprimantur, et sic de statu quem obtinent deturbentur) uniuntur, in societatem aliquam rediguntur, et sic mutua ope conservantur” (SWH NL3: th.1, ll. 11-15); “For what else is Politics than a skill, that stimulus and instigation by which humans are united with each other, drawn in a certain society and thus preserved by mutual effort (either right away after birth on account of their own helplessness, or after the violence and plottings of others were suppressed on the basis of their defencelessness, so that they were thus not driven away from the position they obtain)” (Appendix: Translations, 179, th.1).

¹⁰⁴ Appendix: Translations, 170, th.13; “omnem propterea discordiam, odium et metum (qui unice ex hisce originem ducit) quam longissime ab hinc removendum esse; ne quid nostra ex parte, quod diutius in gradu isto unionis perseverare posset, deturbetur” (SWH NL1: th.13, ll. 16-19).

¹⁰⁵ “[C]um enim *rationis* mandata singulos per se obligant homines, quae commune sibi coniunctum habent bonum, et communem solummodo spectant utilitatem, sequitur, cum enim singuli partes totius sint, bonum cuiusque esse etiam commodum totius universi, et singulos in societate *rationi* obtemperantes, ut illa et recte disposita ac duratura sit efficere” (SWH NL2: th.6, ll. 2-6); “Because the commands of *reason*, which have a common good attached to themselves and only aim at the communal utility, certainly oblige all human beings individually to themselves; it follows that because individuals are certainly parts of the whole, the good of each is also the advantage of the whole universe. And individuals obeying reason in society accomplish that it would be rightly arranged and will endure” (Appendix: Translations, 174, th.6). Also cf. SWH NL1: th.13; id. NL2: th.4-5; id. NL3: th.7.

right, which is equally granted for each and every rational being in this society.¹⁰⁶ When ‘an agreement must be kept’ (which is one of the basic rules in natural law theory), this meant that the conditions of the pact had to be set for both sides and no one should be deprived of their rights, in order for such a pact to be legitimate and just:

“In this way we speak when agreements must be preserved, or the entrusted is to be given back. We set down that these conditions are required for both sides if to be legitimate [...] And as long as the agreements were also just, which means nobody is deprived of his right, they therefore agree with natural law itself to the highest extent.”¹⁰⁷

Regardless of his emphasis on the preservation of the state of the body, Swartenhengst thus also had a strong concern for the protection of individual rights. And, besides, he based his natural law theory on the principle of the Golden Rule, which also appeared in Geulincx’s *Ethics*.¹⁰⁸ As had also been the case in Geulincx’s observation of the law of reason, Swartenhengst likewise considered natural law as a genuine and absolute law:

“It belongs to natural law, therefore, to oblige those by whom it is carried to the observation of itself. We recognise here nothing as merely allowed: it imposes exactly what is to be done and what is to be set aside.”¹⁰⁹

¹⁰⁶ “[I]d autem quid aliud est, quam ne quemquam, quem eiusdem nobiscum rationis (saltem ut externis apparet indiciis) participem esse deprehendimus, iure suo quod ipsi aequae ac nobis concessum est, privemus” (SWH NL2: th.5, ll.14-17); “And what else can this be, than that we may not deprive someone from his right, who we understand as partaking in this same reason with us (at least as he appears by external proofs), which [right] is equally granted for himself and for us” (Appendix: Translations, 174, th.5).

¹⁰⁷ Appendix: Translations, 175, th.8; “sic cum pacta servanda, vel cum depositum reddendum esse dicimus; in utroque si legitimum erit has requiri conditiones statuimus: [...] dummodo etiam pacta sint iusta, hoc est neminem iure suo privantia, ac propterea ipsi naturae legi maxime consentanea” (SWH NL2: th.8, ll. 25-30).

¹⁰⁸ “[Q]uod tibi non vis fieri id alteri ne feceris. ut etiam corpus nostrum quantum in nobis est neve statu sanitatis deturbetur” (SWH NL1: th.8, ll. 18-19); “That which you do not wish to happen to you, do not do unto another; so that our body, also to the extent in which it depends upon us, should not be disturbed from a state of health” (Appendix: Translations, 167, th.8). Geulincx likewise maintained that we have ‘to value our neighbour as ourselves’ (cf. ETH: 91).

¹⁰⁹ Appendix: Translations, 170, th.14; “Legis propterea naturalis est obligare eos quibus fertur ad sui observationem: nihil hic permissivum agnoscimus; exacte quid agendum vel omittendum imponit” (SWH NL1: th.14, ll. 22-3). Swartenhengst distinguished between negative and positive precepts of natural law: the former which bind in terms of all time and place, while the latter only constrain us in certain circumstances but are yet obliging (cf. SWH NL1: th.16; id. NL2: th.7; also cf. ETH: 168, 200-201).

Because Swartenhengst believed that natural law was capable of uniting the individual with the communal good, he arrived at a sociable picture of ‘human society that was founded on love’.¹¹⁰ In accordance with Geulincx, Swartenhengst thus also instigated men to refrain from action on the basis of pure passion, which only regards our own advantage and thereby induces the division of property and domestic disagreements between people. From this exclusive regard for our own interest and the neglect of our relation with other human beings the deterioration towards evil follows, which leads to conflicts in the private as well as the in public sphere.¹¹¹ As long as the precepts of reason and natural law were respected, however, Swartenhengst depicted a positive image of human society and the wellbeing of its individual participants.

In his political theory Swartenhengst, thus, closely resembled Geulincx’s *Ethics*, to whose occasionalistic metaphysics he, nevertheless, only once referred in these disputations.¹¹² This can probably be explained from the fact that Geulincx’s occasionalism reduced the efficacy of man’s free will to the intentional level, and therefore it did not allow for a workable political theory. It is yet clear that Swartenhengst and his students had relied heavily upon Geulincx’s *Ethics* in these disputations, which were ingrained with a moral and social component. Swartenhengst’s natural law theory was, thus, opposed to the Hobbesian emphasis on self-preservation and the absolutism that increasingly started to dominate natural law theory from the middle of the seventeenth century onwards. Because Geulincx himself did not truly discuss the concept of natural law (even if it could be derived from his *Ethics*), Swartenhengst sought additional inspiration in such ancient authors as Aristotle and Cicero, but also with more recent contemporaries such as Hugo Grotius and René Descartes, as will be discussed in what follows.

¹¹⁰ “Societatis humanae fundamentum amor est” (SWH NL1: c.1 l.22); “Love is the foundation of human society” (Appendix: Translations, 171, c.1; also cf. SWH DM3: c.1).

¹¹¹ “To the degree that he will indulge in these only, simultaneously rejecting and esteeming less the command of *reason*, he does or omits nothing other than that to which passion itself instigates him, only having regard for his own utility and advantage. Hence these first tears, namely the domestic disagreements and injustices by which mortals were pulled in different directions, the division of properties arose between them” (Appendix: Translations, 176, th.12; also cf. SWH NL2: th.11; id. NL3: th.8). In accordance with Geulincx Swartenhengst yet established that ‘although action on the basis of passion is wrong’; ‘passion considered in itself stands outside the category of morals, and is therefore morally neither good nor bad’ (cf. Appendix: Translations, 177, c.1-2; SWH NL2: c.1-2, ll. 13-17; ETH: 110, 196-7).

¹¹² Cf. p. 158 of this dissertation.

4.5 WHAT WERE THE REMAINING INFLUENCES IN SWARTENHENGST'S NATURAL LAW THEORY?

4.5.1 Aristotle, Cicero, and Grotius

It was already mentioned at the beginning of this chapter that Swartenhengst's natural law theory was based on a modern disposition, but yet he also made occasional references to such ancient authors as Aristotle and Cicero in these disputations. Swartenhengst thus believed 'that men seem to have been born to live in a society', which is vaguely reminiscent of Aristotle's well-known saying 'that man is by nature a political animal'.¹¹³ Swartenhengst added hereto that 'men gather into society because they are not self-sufficient as individuals'; which view also appeared in Aristotle, who believed 'that smaller villages unite into complete communities in order to provide for the bare needs of life'. Hereupon, however, Aristotle additionally affirmed that 'the state thereupon continues in existence for the sake of the good life.'¹¹⁴ A comparable fragment also occurred in Swartenhengst, which was preceded by the Aristotelian paraphrase that 'to rule and be ruled is necessary':

"Here it must first be inquired from where the government or dominion derived its origin (for in every society, and especially if it was justly established and will be legally regulated, to rule and be ruled is necessary) [...]. Because humans increased, more families in number so to speak gathered into one, so that all the actions of everybody would conspire for the advantage of the common good."¹¹⁵

¹¹³ "[T]hat man seems to have been born to live in a society, and, to be sure, a structured society and one made to last" (Appendix: Translations, 168, th.10; also cf. SWH NL1: th.10, ll. 10-11). "Hence it is evident that the state is a creation of nature, and that man is by nature a political animal. And he who by nature and not by mere accident is without a state, is either a bad man or above humanity [...] (Aristotle *Politics*, Bk 1, Ch.1; *Politica* 1252b 9).

¹¹⁴ "[T]hat is to say, by joining with others man not only increases his preservation and power, but in truth he continuously has a need for society. For from his very birth, deprived of the ability to help himself, he is in need of that of another, since he is not self-sufficient." (Appendix: Translations, 168, th.10; also cf. SWH NL1: th.10, ll. 11-14). In Aristotle the following fragment appeared: "When several villages are united in a single complete community, large enough to be nearly or quite self-sufficing, the state comes into existence, originating in the bare needs of life, and continuing in existence for the sake of a good life" (Aristotle *Politics*, Bk 1, Ch.1; *Politica* 1252b 8).

¹¹⁵ Appendix: Translations, 176, th.10; also cf. SWH NL2: th.10, ll. 10-15. In Aristotle this same phrase appeared: "For that some should rule and others be ruled is a thing not only necessary, but expedient;

Apart from these concise allusions to Aristotle's *Politics*, two references to Cicero were also included in these disputations. In continuation of Aristotle the latter had provided an alternative explanation of how people gather in society in his *De inventione*, but instead Swartenhengst twice quoted from Cicero's *De legibus* in these disputations. In accordance with Cicero Swartenhengst, thus, described natural law as follows:

*“It has not been invented by the minds of men, nor is it some kind of decision of the nations, but it is an eternal thing which rules the whole world, the wisdom to command and prohibit.”*¹¹⁶

Swartenhengst again referred to Cicero's *De legibus* in order to affirm that both positive law and natural law aim at the happiness of the citizens in the state and the peaceful continuation of society:

*“For (as Cicero says elsewhere) just as it is known that the human laws are founded for the wellbeing of the citizens and the preservation of the states, and a quiet and happy life for all; so it is clear for whoever is paying attention to it that natural law looks at this same scope, namely, that we devote ourselves to the preservation and wellbeing of ourselves and others in as far as is in our ability.”*¹¹⁷

Another influence in Swartenhengst was the early modern natural law theorist Hugo Grotius, who placed a stronger emphasis on the importance of self-preservation, but who also established the view that ‘no one should be deprived of his right’. In his *De*

from the hour of their birth, some are marked out for subjection, others for rule” (Aristotle *Politics*, Bk 1, Ch.5; *Politica* 1260a).

¹¹⁶ Appendix: Translations, 169, th.11; also cf. SWH NL1: th.11, ll. 22-4. Here Swartenhengst was referring to the following fragment in Cicero's *De legibus*: “Well, then, I find that it has been the opinion of the wisest men that Law is not a product of human thought, nor is it any enactment of peoples, but something eternal which rules the whole universe by its wisdom in command and prohibition”; “Hanc igitur video sapientissimorum fuisse sententiam, legem neque hominum ingeniis excogitatam nec scitum aliquod esse populorum, sed aeternum quiddam, quod universum mundum regeret imperandi prohibendique sapientia” (Henderson; Keyes 2006: Bk 2, §iv: 8). At the start of Cicero's *De Inventione* there is an alternative explanation concerning the crucial role of eloquence during the evolution from men in the state of nature into an organised community (cf. Cicero *De inventione* Bk 1, Ch.2).

¹¹⁷ Appendix: Translations, 174, th.5; also cf. SWH NL2: th.5, ll. 20-4. Here Swartenhengst was referring to the following fragment in Cicero's *De legibus*: “It is agreed, of course, that laws were invented for the safety of citizens, the preservation of States, and the tranquillity and happiness of human life [...]”; “Constat profecto ad salutem civium civitatumque incolumitatem vitamque hominum quietam et beatam inventas esse leges” (Henderson; Keyes 2006: Bk 2, §v: 11).

iure belli ac pacis Grotius, thus, referred to the third book of Cicero's *De officiis*, in which the latter had proclaimed 'that it is repugnant to the law of nature to deprive another of what belongs to him.'¹¹⁸ Even though Cicero never spoke of natural rights himself, there is a strong similarity between this passage from *De officiis* and the overall tone and the corporeal metaphors in Swartenhengst's disputations.¹¹⁹ Although Grotius had established 'the preservation of our natural state as the first duty in human nature'; he also allowed an exceedingly important role for the social life between humans, where the natural right on self-preservation can be peacefully exerted:¹²⁰

"But among the traits characteristic of men is an impelling desire for society, that is, for the social life – not of any and every sort, but peaceful, and organised according to the measure of his intelligence [...] Stated as a universal truth, therefore, the assertion that every animal is impelled by nature to seek only its own good, cannot be conceded."¹²¹

¹¹⁸ "Thus for instance, to deprive another of what belongs to him, merely for one's own advantage, is repugnant to the law of nature, as Cicero observes in the fifth Chapter of his third book of offices [...]" (Kelsey 1925: Bk 1, Ch.1, §3).

¹¹⁹ "For, if we are so disposed that each, to gain some personal profit, will defraud or injure his neighbour, then **those bonds of human society**, which are most in accord with Nature's laws, must of necessity be broken. Suppose, by way of comparison, that **each one of our bodily members** should conceive this idea and imagine that it could be strong and well if it should draw off to itself the health and strength of its neighbouring member, **the whole body** would necessarily be enfeebled and die; so, if each one of us should seize upon the property of his neighbours and take from each whatever he could appropriate to his own use, **the bonds of human society** must inevitably be annihilated" (Cicero *De officiis* Bk 3, Ch.5). In Swartenhengst a comparable fragment occurred: "**This bond** requires that people being dispersed and spread out would, as it were, come together in one mutual partnership, and likewise **every single member of this same body** would join together amongst each other in a union and society. In the same way [...] **everybody comes together equally in a certain communal body, and they seek the general good and health of this body with mutual help** (Appendix: Translations, 182, th.7; also cf. SWH NL3: th.7, ll. 9-15). Aristotle had similarly compared the state with the body and the citizens with its parts in the first book of his *Politics*: "Further, the state is by nature clearly prior to the family and to the individual, since the whole is of necessity prior to the part; for example, if **the whole body** be destroyed, there will be no foot or hand, except in an equivocal sense, as we might speak of a stone hand; for when destroyed the hand will be no better than that. [...] The proof that the state is a creation of nature and prior to the individual is that the individual, when isolated, is not self-sufficing; and therefore **he is like a part in relation to the whole**" (Aristotle *Politics*, Bk 1, Ch.2).

¹²⁰ "He calls the care, which every animal, from the moment of its birth, feels for itself and the preservation of its condition, its abhorrence of destruction, and of every thing that threatens death, a principle of nature. Hence, he says, it happens, that if left to his own choice, every man would prefer a sound and perfect to a mutilated and deformed body. So that preserving ourselves in a natural state, and holding to every thing conformable, and averting every thing repugnant to nature is the first duty" (Kelsey 1925: Bk 1, Ch.2, §1).

¹²¹ Grotius *Prolegomena* 6; also cf. id. *Prolegomena* 7; Willems 1983: 49-56. The first feature in human nature was the need for self-preservation, but the second was the sound judgement of what is appropriate, which made life with others possible (cf. Kelsey 1925: Bk 1, Ch.2, §1; Haakonssen 1998: 1326-30).

Swartenhengst shared Grotius' view that men have a need for society that surpassed the mere need for self-preservation:

"[...] that is to say, by joining with others man not only increases his preservation and power, but in truth he continuously has a need for society."¹²²

Swartenhengst's view that 'the law of nature is the dictate of right reason' could have been derived from Geulincx's *Ethics*, but it also appeared in Grotius' *De iure belli ac pacis*.¹²³ Besides, Swartenhengst also seemed to have indirectly derived several of the principles of his natural law theory from Hugo Grotius' *Prolegomena*, which had to guarantee the harmonious operation of society:

"From this earlier principle, now, through a valid consequence this conclusion is proven and shown: that *what is entrusted must be given back, agreements must be kept, and nobody shall be deprived of his right.*"¹²⁴

The first principle of Swartenhengst's natural law theory was the Golden Rule, which did not so straightforwardly appear in Grotius, as it did in an extended range of other authors (such as Arnold Geulincx or Thomas Hobbes).¹²⁵ On a more general level

¹²² Appendix: Translations, 168, th.10; "id est non solum aliis se iungendo conservationem et potentiam suam auget, verum ea continue opus habet" (SWH NL1: th.10, ll. 11-13).

¹²³ "Therefore, by duly researching this thing we can establish that reason is not something different from the *law of nature*. Indeed, *reason itself is the law of nature* [...]. **Thus, the first and essential characteristic of natural law is to dictate** [...]" (Appendix: Translations, 166-7, th.6-7; also cf. SWH NL1: th.6-7, ll. 30-31, 5). In Grotius the following fragment appeared: "**The law of nature is the dictate of right reason**, which points out that an act, according as it is or is not in conformity with rational nature, has in it a quality of moral baseness or moral necessity; and that, in consequence, such an act is either forbidden or enjoined by the author of nature, God" (Kelsey 1925: Bk 1, Ch. 1, §10).

¹²⁴ Appendix: Translations, 168, th.8; also cf. SWH NL1: th.8, ll. 22-4. In Grotius the following fragment occurred: "This maintenance of the social order, which we have roughly sketched, and which is consonant with human intelligence, is the source of law properly so called. To this sphere of law belong the **abstaining from that which is another's, the restoration to another of anything of his which we may have**, together with any gain which we may have received from it; **the obligation to fulfil promises**, the making good of a loss incurred through our fault, **and the inflicting of penalties upon men according to their deserts**" (Grotius *Prolegomena* 8).

¹²⁵ "And thereafter we can approach certain conclusions deduced through reasoning from these first principles. These principles are: 1. *That which you do not wish to happen to you, do not do unto another*; so that our body, also to the extent in which it depends upon us, should not be disturbed from a state of health. 2. Accordingly, one must live in peace and quietness" (Appendix: Translations, 167, th.8; also cf. SWH NL1: th.8, ll. 17-20). The Golden Rule occurred in both the Old Testament and the New Testament (cf. *Leviticus* 19:18; *Tobit* 4:15; *Sirach* 31:15; *Matthew* 7:12, 19:19; *Luke* 6:31). Geulincx likewise instigated his readers "*to value our neighbour as ourselves*" (ETH: 91). In his *Leviathan* (1651) Thomas

Swartenhengst also agreed with Grotius on the fact that he derived the ethical prescriptions of his natural law theory from reason and nature itself; and he completely refrained from referring to God as the source or legislator of this natural law.¹²⁶

In his disputations Swartenhengst had, thus, adopted a secular and natural approach towards natural law, as had also been the case in Grotius' *On the laws of War and Peace* from 1625. In the continuation of this chapter it will be explained how Swartenhengst may have intensified this naturalising tendency by reformulating Descartes' first law of motion into the primary axiom of his natural law theory: 'that everything should remain in the state in which it is, in as far as it is on our part.'

4.5.2 What Was the Influence of Descartes' Physical Laws of Nature?

In his secular and intellectual conception of natural law Swartenhengst not merely agreed with Grotius, but this approach also matched the rational foundation that Descartes had established for his physical laws of nature in the *Discours de la méthode*. Descartes had placed the foundation of all epistemological truth in reason, which principle he extended to the mechanical laws of nature, of which the human mind possessed the innate notions.¹²⁷ By stating that God implanted the notions of His immutable laws of nature in the human mind, Descartes had established an indubitable epistemological standard for his mechanical science. It was this foundation that Swartenhengst in his disputations on natural law attempted to extend to the ethical domain. Thus discarding the historical background of the theological conception of

Hobbes also summarised his nineteen laws of nature in this one general rule: 'Do not that to another, which thou wouldest not have done to thy selfe' (Macpherson 1979: Part 1, Ch.15, 214).

¹²⁶ "With certain principles of natural law thus adduced, then it easily appears what this law itself is. For it is that, which the nature of things had brought forth along with mankind itself, what natural reason establishes between all humans, and what is common to all men" (Appendix: Translations, 168, th.9; also cf. SWH NL1: th.9, ll. 31-2).

¹²⁷ "I have always remained firm in the resolution that I took never to assume any principle other than the one I have just used to demonstrate the existence of God and the soul, and never to accept anything as true which did not seem to me to be clearer and more certain than the demonstrations of the geometers had previously seemed" (Descartes *Discourse V* in Olscamp: 34); "For my part, I am not acquainted with any motion except that which is easier to conceive than the lines of the geometers – the motion which makes bodies pass from one place to another and successively occupy all the spaces which exist in between" (Descartes *The World* Ch.7 in CSM, vol. 1: 94).

natural law, Swartenhengst equated Descartes' law of nature to reason on the physical as well as on the ethical level:

“Indeed, *reason itself is the law of nature* [...] Thus, through this attribute (namely *dictating*) *reason* or the law of nature extends itself as far as possible, as much with physical things, as with those which concern both ourselves and other humans beyond us, and which instruct us to take account of them.”¹²⁸

In support of this united application of reason or the law of nature to the physical as well as the moral domain, Swartenhengst postulated Descartes' first law of nature concerning the inertia of rest and motion as an ethical axiom. Descartes' first law of nature established ‘that each individual part of matter continues in the same state, so long as collision with others does not force it to change that state.’¹²⁹ In his disputation on natural law Swartenhengst reformulated this law of nature into the following axiom:

“[...] that anything, to the extent that it remains of its own in the same state, must therefore from our part not be disturbed from it.”¹³⁰

¹²⁸ Appendix: Translations, 166-7, th.6-7; “*ipsa enim naturae lex ratio est* [...] Hoc igitur attributo (*dictando* scilicet) *ratio* seu lex naturae quam latissime sese extendit, utpote etiam tam ad res physicas, quam ad illas quae nos metipsos, ac alios extra nos homines concernunt, et respectum ad illos dicunt”. (SWH NL1: th.6-7, ll. 31, 9-11). Also cf. SWH NL1: th.3, ll. 32-2: “And thus we declare that *reason* is to be the foundation of everything in the speculation upon truth, which we will then attempt to extend even to the practical concerns of life, or to all circumstances of our actions [...]” (Appendix: Translations, 165, th.3).

¹²⁹ Cf. *The World* Ch.7 in CSM, vol. 1: 93; *Principles* II.37 in Miller: 59. Descartes' claim ‘that an object at rest or an object at motion does not change its state, unless it is interfered with by another object’ criticised the Aristotelian view that objects have a natural tendency towards rest. Swartenhengst did not derive this view from Descartes himself, who in his *Comments on a Certain Broadsheet* had still criticised Henricus Regius (1598-1679) on account of the fact that the latter connected the law of the immutability in nature with the preservation of men: “The bond which keeps the soul conjoined with the body is the law of the immutability of nature, according to which everything remains in its present state so long as it is not disturbed by anything else” (*Comments on a Certain Broadsheet* in CSM, vol. 1: 295). According to Descartes, Regius could only maintain this claim if he considered the mind as a mode of the body, which was a view that both himself, as well as Cornelis Bontekoe criticised (cf. *Comments on a Certain Broadsheet* in CSM, vol. 1: 294, 303; Terraillon 1912: 173).

¹³⁰ Appendix Translations, 165, th.3; SWH NL1: th.3, ll. 3-4. This axiom repeatedly returned in slightly different formulations throughout Swartenhengst's disputations on natural law, such as for example in the following fragment: “This must again be referred towards this axiom: may it remain in this state in which it is, not should it be driven away from it in as much as it is on our part.” (Appendix: Translations, 174, th.5; SWH NL2: th.5, ll. 17-18; also cf. SWH NL1: th.8; id. NL3: th.5). The phrase ‘in as much as it is on our part’ seems reminiscent of Geulincx's occasionalism, who believed that humans exerted no causal force, since all the events in the external world and in their own body were arranged by God.

Besides, Descartes maintained that ‘objects always strive to preserve themselves’, and ‘that nothing moves towards its opposite or destruction on the basis of its own nature.’ This latter component of Descartes’ first law of nature was also affirmed by Swartenhengst in the corollaries to his second disputation on natural law:

“No body strives for its destruction on its own instigation.”¹³¹

Hence, Swartenhengst had alluded to Descartes’ first law of nature in his ethical application of natural law, which he besides equated to reason and implicitly separated from divine law and Revelation. Swartenhengst, thus, attempted to render the same degree of certainty to the human sciences of ethics and politics, as Descartes had established for his mechanical physics.

Although Descartes personally refrained from explicitly applying the status of his mathematical-physical and metaphysical eternal truths to the moral domain, there were quite a few seventeenth-century contemporaries who would try to unite the moral and physical application of natural law after Descartes. Hence, this ancient concept became the glue that joined cause and effect in both the natural and the moral domain during the seventeenth and eighteenth century, when modern natural law theorists started to adopt physical regularities as a model for the moral world. It might have been this terminological overlap between natural law and the laws of nature which appealed to many seventeenth-century philosophers, who tried to incorporate the regularities of the physical laws of nature into the concept of moral natural law or *vice versa*.¹³²

¹³¹ Appendix: Translations, 177, c.9; also cf. SWH NL2: c.9, l. 8. For Descartes’ claim that ‘no object strives towards its own destruction’ cf. *The World* Ch.7 in CSM, vol. 1: 93-4; *Principles* II.37 in Miller: 59.

¹³² Cf. Daston & Stolleis 2008: 4, 10, 12; Larrère 2008: 250; Schröder 2008: 62-3. Thomas Hobbes (1588-1679) had been one of these philosophers who constructed his political philosophy on the basis of the principles of motion. It had only been a few years before the defence of Swartenhengst’s disputations on natural law that Hobbes’ collected works in Latin were published in Amsterdam in 1668 (cf. MacPherson 1979: 22). Hobbes’ political philosophy was, nevertheless, still perceived as highly controversial in the Dutch Republic, where the Cartesian Lambert van Velthuysen (1622-85) had been the only one who openly addressed his philosophy. Even though Hobbes was rarely referred to in a positive sense in academic circles, he was frequently refuted, as also once explicitly happened in one of Swartenhengst’s disputations: “An error of the same appearance comes from this Englishman, who had said that thoughts are aroused on the basis of a great collision of particles and fibres in the brain, just as fire is created by a flint-stone. Certainly you would sooner extract water from a pumice stone, than any thought from such a collision” (Appendix: Translations, 256, th.22; SWH PP1675: th.22, ll. 15-17).

Despite the ethical-political gap in Descartes' philosophy, it is perhaps not even so surprising that Swartenhengst used the latter's laws of nature for this purpose, since Descartes had himself indicated that he considered moral philosophy as part of his tree of knowledge in the *Principles*.¹³³ After this tendency to subject the moral and physical domain to the same type of natural causality, an opposite dynamic commenced at the end of the eighteenth century when a sharper distinction emerged between the natural and the moral realm and the regularities that governed each. Presently, the awareness developed that the causal connection that had unified mathematics and natural philosophy seemed ill-suited for the looser regularities of human conduct.¹³⁴

At the time when Swartenhengst formulated his natural law theory, however, the possibility that the physical laws of nature could supplement the lack of certainty in the moral-political domain had still seemed realistic. Even though Swartenhengst had extended the mechanical application of Descartes' first law of nature to the ethical domain, he was careful not to devalue natural law and turn it into an artificial concept that merely served the purpose of self-preservation in a mechanical sense. Although Swartenhengst did not refer to its divine legislator but instead adopted a natural and secular approach towards natural law; he yet referred to Grotius in order to emphasize the sociable nature of mankind; as well as to the social and selfless elements in the *Ethics* of his teacher Arnold Geulincx, which was built upon the Christian virtue of humility. Even if he based his natural law theory upon a rational and scientific foundation that was inspired by his Cartesian background (and possibly Thomas Hobbes); for Swartenhengst natural law had still remained a genuine and unambiguous law, which

¹³³ "Thus, Philosophy as a whole is like a tree; of which the roots are Metaphysics, the trunk is Physics, and the branches emerging from this trunk are all the other branches of knowledge. These branches can be reduced to three principal ones, namely, Medicine, Mechanics, and Ethics [...]" ('Letter from the Author' in Miller: xxiv). Regardless of the fact that Descartes produced a *morale provisoire* in his search for truth in the *Discourse*; his voluntarist account of a rational morality in the *Meditations*; his view of morality as one of the fruits or even the last goal of philosophy in the *Principles*; and his psychological morality in the *Passions*; it is undeniable that Descartes' philosophy did not focus heavily on the ethical-political domain. Rather Descartes is known for his dualistic metaphysics, his rationalist epistemology, and his mechanical natural philosophy, and even amongst his own contemporaries there was a general awareness that Descartes had left a gap on the level of ethics and especially politics. Despite Descartes' silence in relation to the political sciences, his philosophy yet obtained a political connotation (i.e. republican and anti-orangist) in the Dutch Republic, as was previously discussed in Chapter One.

¹³⁴ Cf. Daston & Stolleis 2008: 10-11.

held absolute validity between humans and served their mutual preservation and wellbeing in society.¹³⁵

¹³⁵ Haakonssen 1998: 1335. The following fragment in Swartenhengst's first disputation on natural law is reminiscent of Hobbes, since he established the preservation of our physical health as the first consequence of his first principle of natural law, namely, the Golden Rule: "And thereafter we can approach certain conclusions deduced through reasoning from these first principles. These principles are: 1. *That which you do not wish to happen to you, do not do unto another*; so that our body, also to the extent in which it depends upon us, should not be disturbed from a state of health. 2. Accordingly, one must live in peace and quietness" (Appendix: Translations, 167, th.8; also cf. SWH NL1: th.8, ll. 17-20). Yet, the differences between Hobbes and Swartenhengst are much more predominant in these disputations than such implicit agreements: 1. For Swartenhengst natural law held an imperative validity, whereas for Hobbes 'the dictates of reason are called law improperly, because law is the word of him that by right has the command over the other' (*Leviathan* Part 1, Ch. 15 in Macpherson 1979: 216-17); 2. Swartenhengst never discussed the rights and duties of the sovereign, and he was opposed to the view of a social contract theory in terms of the sacrifice of the natural rights of the individual to sovereign (cf. SWH NL2: th.8); 3. Hobbes mentioned that men can never reach a tranquil state, because they are always in motion and can never be without desire and fear (cf. *Leviathan* Part 1, Ch. 6 in Macpherson 1979: 130). Swartenhengst was more optimistic in his perception of the tranquil and peaceful life, and he believed that humans should refrain from acting on the basis of such passions as fear and hatred (SWH NL1: th.8, th.13; id. NL2: th.5); 4. Hobbes indicated 'that men differ from bees and ants, because for the latter the common good overlaps with their own good' (*Leviathan* Part 1, Ch. 17 in Macpherson 1979: 225). Swartenhengst oppositely maintained that the good of the individual does agree with the common benefit (SWH NL1: th.13; id. NL2: th.4-6; id. NL3: th.7).

Serio et candide ('serious and honest')

ARNOLD GEULINCX, *Quaestiones quodlibeticae* (Antwerp: 1653) –
Geulincx's personal motto that was printed on the title page.

CONCLUSION

In this dissertation the life and the writings of the seventeenth-century Dutch Cartesian Johannes Swartenhengst (1644-1711) were discussed, who has thus far been an obscure and little-noticed figure in the history of the Early Dutch Enlightenment. Swartenhengst's disputations touched upon all the major philosophical disciplines that were then taught at the university, and thereby provide us with an interesting example of the Cartesian views that were circulating in academic circles. Swartenhengst's dismissal occurred at a particularly heated moment, when the tensions after the war and the political turnover from 1672 had culminated at the university. Besides, Swartenhengst's career at Leiden also coincided with the breakthrough of Spinoza in the Dutch Republic, with whose views the occasionalistic metaphysics and ethics of his teacher Arnold Geulincx soon became to be associated during the early eighteenth century.¹ In this conclusion a summary overview of the content of the dissertation will be provided, which focuses upon the questions how Swartenhengst's disputations related to the views of his teacher Arnold Geulincx; and whether he should be labelled a 'radical Cartesian' on account of the content of his teaching?

In Chapter One a comprehensive overview of Swartenhengst's biographical details was provided, which was succeeded by a discussion of the major theological problems that were associated with Cartesianism in Chapter Two. In Chapter Three and Four the content of Swartenhengst's disputations was analysed, which focused on the topics of metaphysics, occasionalism, and natural law. As was hopefully demonstrated in these latter two chapters, Swartenhengst had clearly been addressing the philosophy of his teacher Arnold Geulincx in his private lectures, as appears from the frequent Geulincxian paraphrases in the disputations. On a more general level Swartenhengst's disputations also provide us with a noteworthy example of the continuation of René Descartes' philosophy in the seventeenth-century Dutch Republic (especially in as far as Swartenhengst's disputations on natural law were concerned, which aim at filling in the ethical-political gap that had been left open by Descartes). The underlying

¹ The association between Geulincxianism and Spinozism contributed to the quick downfall of Geulincx's philosophy in the Dutch Republic (cf. Israel 2001: 434-5, 551; Thijssen-Schoute 1954: 178-80; Ruler van 1999b: 92-5; id. 2003b: 328).

occasionalistic thread that runs through the majority of these disputations can, besides, also be interpreted as a response to the unsolved problem of causal interaction in Descartes' philosophy, as was discussed in Chapter Three.

Swartenhengst's texts all belonged to the genre of the academic disputation, which were in high demand at the Dutch universities at this time (even if they composed a frequent source for conflict). The transcriptions and translations from the fifteen disputations that Swartenhengst presided over during the years 1670-1675 can be found in the Appendix. Apart from Swartenhengst's doctoral disputation from 1670, the remaining fourteen disputations all originated from his period as lector at the university between February 1672 and December 1675. In terms of their content these disputations basically touch upon the four primary philosophical disciplines: metaphysics, epistemology, ethics, and physics. Swartenhengst had started his career with a tripartite series of ethical-political disputations *On Natural Law*; followed by another sequence of disputations *On Knowledge and Error*. This latter series was once more intersected by a third series of disputations *On the World*; and besides, Swartenhengst's students also defended two individual disputations on natural philosophy, as well as two miscellaneous ones.

As far as the disputations that belong to a sequence are concerned, in section 1.3.2 it was claimed that these originated from a disputing college that was taught and supervised by Swartenhengst. The reasons for this assumption are that his disputations display a coherent content (in the sense that they all address elements of both the Cartesian *and* the Geulincxian philosophy); they also explicitly refer to one another; and they were defended by a steady group of students. Unlike the public lectures, the topics that were treated at these private colleges were not subjected to the control of the curators and the senate, which allowed for a greater degree of freedom on the part of the lecturers. Hence, these private colleges were ideal for introducing new subjects to the students, such as the Geulincxian philosophy and the study of natural law in Swartenhengst's case. In terms of the authorship, Swartenhengst's students seem to have contributed personally to the writing process of these disputations, as also becomes apparent from the variations in style and the quality of the Latin. Although Swartenhengst was, therefore, not the only author of these disputations; he can as yet be

held responsible for the foregoing instruction and for the implementation of a common Cartesian-Geulincxian thread of thought that runs through all of them.

Summary Overview of the Four Chapters

In Chapter One an overview of Swartenhengst's biographical details was provided, which includes a description of the major historical-political events and the institutional context at Leiden. Swartenhengst had been born shortly before the onset of the First Stadholderless period in 1650, which coincided with the rapid success of the Cartesian philosophy at both Leiden as well as at various other Dutch universities. Although the shift to De Witt's Stadholderless regime by no means meant that Cartesianism now enjoyed a free reign in the Dutch Republic, an innovative spirit had presently proliferated in Dutch academia. Notably, this sense of intellectual freedom had also once again been curbed at most universities after De Witt's Stadholderless rule collapsed during the war of 1672. This was the exact year in which Swartenhengst had started his career as lector at the university of Leiden. And even though it may still have been possible to expound a more 'liberal' orientation with some discretion, this sudden change of climate will have affected Swartenhengst's academic prospects.

Swartenhengst had, presumably, firstly studied philosophy at the university of Utrecht before he matriculated as a theology student at Leiden in May 1664. He, nevertheless, soon returned to the philosophical department, which may have been related to the improper proceeding of his marriage (for which he was reprimanded by the Reformed consistory). This decision to continue his studies in the philosophical faculty contrasted with the common practice among the students, who generally continued their studies in one of the higher faculties after spending some initial years in the propaedeutic *artes*. By the early 1660s, however, the importance of the philosophical faculty at Leiden had been elevated, because it was through the domain of physics that René Descartes' New Philosophy was finding its way into the Dutch lecturing halls. During Swartenhengst's student years there were various members of staff at Leiden who were shedding a positive light on the Cartesian philosophy, amongst whom stood the Flemish

philosopher Arnold Geulincx (1624-69). Upon his arrival from Louvain in 1658 Geulincx had been welcomed by Abraham Heidanus (1597-1678), who as the first academic theologian introduced his students to a positive awareness of Cartesianism.

After his decease in 1669 Geulincx's philosophy was continued at the university by Swartenhengst and his Cartesian ally, Cornelis Bontekoe (1644-1685). Swartenhengst's first reference to Geulincx's philosophy appeared in his inaugural disputation from April 1670, in which he summarised the latter's occasionalistic metaphysics. At the start of the academic year in February 1672 Swartenhengst was nominated to the position of lector, which office consisted in the task of presiding over public disputations in philosophy. Swartenhengst's tuition will have helped Geulincx's heritage to live on among his circle of students and the other attendants of his disputations; and in this he was helped by Bontekoe, who apart from opposing in his disputations also edited Geulincx's complete writings on ethics in 1675. It was during this same year when Swartenhengst and Bontekoe had been simultaneously dismissed from the university on 18 December 1675. As appears from the resolutions of the curators, one of the reasons from their mutual dismissal had been the unruly procedure of the disputations. Besides, Swartenhengst's overzealous defence of the Cartesian philosophy and his mocking attitude towards Aristotelianism had also been a thorn in the eye of the curators. A few months later the senior professor Abraham Heidanus was allotted the same fate, and the philosophical tuition at the university of Leiden was henceforth led away from Cartesianism into the direction of the experimental science.²

In the second chapter the criticisms that Aristotelian philosophers and theologians voiced against the Cartesian philosophy from the 1640s until the 1670s were analysed. One of the long term opponents against the Cartesian philosophy had been the Utrecht rector and minister, Gisbertus Voetius (1589-1676), who exerted a leading role as anti-Cartesian protagonist from the late 1630s onwards. Voetius associated the threatening force of the Cartesian philosophy with the Arminian-Gomarist controversy that had

² For an extensive explanation concerning the aftermath of the Cartesian philosophy and the onset of the experimental science at Leiden under the influence of Burchard de Volder (1643-1709) and Wolfert Senguerdius (1646-1724) during the last quarter of the seventeenth century cf. Wiesenfeldt 2002: 76-98.

shaken Dutch society at the beginning of the century.³ The theological rift between Arminians and Gomarists had been settled with Prince Maurits' coup d'état and the Synod of Dordt in 1618, in which the orthodox dogmas and biblical interpretation were more strictly defined. From the second quarter of the seventeenth century onwards the confessional lines in the Dutch Republic had gradually stabilised, and the Dutch Reformed Church was established as the largest confessional bloc by far in the nation. From the second half of the seventeenth century onwards a new faction strife would emerge between the orthodox Voetians and the more lenient Cocceians. The breakthrough of Descartes' philosophy in Dutch academia from the early 1640s onwards would only add to these theological conflicts, and during the 1660s Cartesianism even became to be associated with Johannes Cocceius' figurative biblical interpretation.⁴

In the continuation of the second chapter the details from Descartes' lifetime were discussed, as well as his rejection of the Aristotelian philosophy. Already upon his arrival in the Dutch Republic Descartes had aimed to replace the paradigm of Aristotelian physics with his mechanical worldview in his treatise 'On the World'. Because this latter work remained unpublished, Descartes made a second attempt in this *Discours de la méthode* from 1637, in which he discarded the value of ancient book-wisdom and sensible knowledge. With his methodological refutation of the writings of the ancients Descartes had touched upon delicate grounds, since the Aristotelian philosophy traditionally served as the didactical underpinning for the education in theology. In agreement with the theological worldview the traditional programme in

³ In his *La liberté chez Descartes et la théologie* (1913) Etienne Gilson has compared Descartes' Fourth Meditation to the philosophical version of the theological problem of sin, which was also at stake in Arminius' account of predestination (cf. Gilson 1913: 266; Petrik 1992: 30). Descartes had frequently been accused of Pelagianism, because he attributed an unlimited degree of freedom to the human will in his Fourth Meditation. The accusation of attributing too much value to human choice had similarly been made against the Remonstrants, who emphasised the importance of individual faith at the expense of divine providence (cf. Hoenderdaal 1975: 137; McGahagan 1976: 35-8; Verbeek 1992: 5-6).

⁴ Johannes Cocceius (1603-69) was mostly known for his covenant theology, in which he distinguished between the covenant that God had made with the Jews and His later covenant with the Christians. This meant that Cocceius employed an allegorical interpretation of certain passages in the *Old Testament*, which were only valid in the context of God's covenant with the Jews. Cocceius' figurative biblical interpretation caused his theology to be associated with Cartesianism during the 1660s, because the Cartesian science also supported a non-literal reading of the Bible and devaluated the importance of miracles. However, Cartesianism and Cocceianism did not so much come together because of their content, but rather it was their shared enemy Gisbertus Voetius who united the two doctrines (cf. Asselt van 2003: 217-18; Berg van den 1994: 18-19; Bunge van 2001: 53-4; Cramer 1889: 5-6; Israel 1995: 892; Otterspeer 2000: 380-2; Wiesenfeldt 2002: 49-51; Verbeek 1992: 87).

philosophy explained all the physical changes in the world in terms of a teleological process, by virtue of the Aristotelian substantial forms and accidental qualities. By establishing a mechanical worldview of matter in motion Descartes had stripped the corporeal world of its spiritual dimension, and he had introduced an element of necessity due to the uniform and static application of the laws nature.

In the eyes of certain contemporaries Descartes had, thus, posed a threat to theology with this disenchanted worldview, because the immutable laws of nature by which Descartes described all the physical changes in the world diminished God's absolute power in the created universe. The static character of Descartes' mechanical laws of nature, therefore, put a serious question mark over the absolute freedom of the divine will after creation, because God could no longer miraculously intervene in the ordinary course of nature after He had freely implemented these eternal and unchangeable laws.⁵ Although the deterministic character of Descartes' physics corresponded perfectly well to his *a priori* epistemology, and besides, rendered the Cartesian natural philosophy the status of a certain universal science; it had henceforth become exceedingly difficult for Descartes to convincingly account for the possibility of divine interventions. Descartes' mechanical worldview would induce frequent conflicts with orthodox theologians and Aristotelian philosophers once it had made its earliest appearance at the universities in the Dutch Republic during the 1640s.⁶ Descartes even became personally involved in these theological polemics, and it was with a sense of disappointment at the lack of success of his philosophy when Descartes left the Dutch Republic in 1649.

Despite the fact that the tuition of Descartes' philosophy had been prohibited at both the universities of Utrecht and Leiden in 1642 and 1647, Cartesianism flourished more vigorously than ever in Dutch academia from the 1650s onwards. Throughout the third quarter of the seventeenth century Descartes' mechanical physics would start to

⁵ At the end of *The World* Descartes had explicitly suggested 'that God would no longer conduct miracles in this new world': "In order to eliminate any exception that may prevent this, we shall, if you please, suppose in addition that God will never perform any miracle in the new world, and that the intelligences, or the rational souls, which we might later suppose to be there, will not disrupt in any way the ordinary course of nature" (*The World* Ch.7 in CSM, vol. 1: 97).

⁶ Other dangers that were perceived in the Cartesian philosophy were the method of doubt, his unorthodox proofs for the existence of God, the uneven balance between faith and reason, the rational biblical interpretation that followed from Descartes' natural philosophy, the unlimited amount of freedom that was attributed to the human will, as well as the dualistic relationship between the soul and the body.

dominate the academic tuition in natural philosophy. Whereas Descartes himself had still been hiding the deterministic implications of his natural philosophy behind a theological voluntarism, some of his successors were less prudent in these matters. An important challenge the academic Cartesians had to face was the emergence of a radical circle around the philosopher Benedict de Spinoza (1632-1677), which openly revealed the theologically dangerous implications of Cartesianism.⁷ Most academic Cartesians tried to distance themselves from these radical interpretations that were mostly voiced outside of the university walls. Besides, although there seems to have been a general awareness of Spinoza's writings at Leiden, the quarrels between the academic staff do not seem to have touched upon his philosophy directly.⁸ Rather it had been the change of atmosphere after 1672, that allowed for numerous conflicts to emerge between the residing Cartesian staff and their freshly appointed conservative colleagues.

In hindsight the timing of Swartenhengst's appointment could hardly have been more unfortunate, because it exactly coincided with the onset of the second Cartesian battle at Leiden. Even though Descartes' philosophy had never stopped being a cause of ongoing quarrels ever since its first introduction in Dutch academia during the 1640s, there had been a notable increase in the anti-Cartesian opposition from 1672 onwards. Presently, the Stadholderate in the Dutch Republic had been reinstated, which resulted in an enhanced influence for the orthodox Calvinist faction on the ecclesiastical and political

⁷ The anonymous publication of Spinoza's *Theological-Political Treatise* in 1670 openly demonstrated the naturalising (and possibly atheistic) consequences that could be deduced from Cartesian philosophy. Although Spinoza established an official separation between philosophy and theology, to his opponents it was obvious that in this book the truths of Revelation became directly dependent upon man's philosophical judgement; that the laws of nature were employed to discard the belief in miracles; and that the highly controversial identification of God with Nature was already provisioned (cf. Bunge van 2001: 94-122; Israel 1995: 896-9; Israel 2007: viii-xxxiv; Ruler van 1999b: 90-2).

⁸ An indication of a general awareness in Leiden concerning the content of Spinoza's writings appeared in Cornelis Bontekoe's posthumous publication of Geulincx's *Ethics* in 1675, which was explicitly aimed against Spinoza's naturalistic line of thought: "Accepting nothing but what could be grasped by the imagination, these disciples of Servet and Vanini went so far as to deny the existence of God, and to substitute Him with the world itself, saying that all things taken together constituted God, ourselves included (Bontekoe 1675/1696: *4; 1675-1696: [*8])" (cf. Ruler van 1999b: 89). In a conversation with Gaspar Fagel on 28 June 1674 the professors De Volder, Heidanus, and Wittichius had informed Holland's Grand Pensionary that it were 'certain people rather than the Cartesian philosophy itself that was to be blamed'. In his *Éloge de feu Mr De Volder* (1709) Jean le Clerc (1657-1736) provided a recapitulation of this conversation, which was based on De Volder's own notes. The latter indicated that during this conversation they had informed Gaspar Fagel that: 'if anyone ever used Descartes' philosophy in order to address political matters, the persons should be punished and not the philosophy (*puniantur personae non res*)'. Almost certainly this will have been a reference to Benedict de Spinoza's *Tractatus theologico-politicus* from 1670 (cf. Clerc le 1709: 356-9; also cf. Wiesenfeldt 2002: 60-1).

level, and thereby diminished the intellectual freedom at the universities. At Leiden these recent developments inevitably generated conflicts, which involved the dismissal of Swartenhengst, Bontekoe, and Heidanus, and the subsequent removal of the Cartesian philosophy from the academic curriculum. Swartenhengst's dismissal and the disputations that he left behind still provide us with an interesting part of the puzzle in the overarching Cartesian battle at Leiden. Some of the theses that appeared on the list with prohibited propositions - that had been issued shortly after Swartenhengst's and Bontekoe's dismissal in January 1676 - also occurred in Swartenhengst's disputations.⁹ As will appear from the discussion of his disputations in Chapter Three and Four, however, at least on paper the content of his disputations was not highly controversial.

At the start of Chapter Three the general outline of Descartes' metaphysical project was explained, as well as the way in which his metaphysics related to his natural philosophical and epistemological views. All three domains were essentially intertwined in Descartes' philosophy, because it is by virtue of his innate and reductionist epistemology that Descartes bridged the metaphysical gap between the mental and the corporeal realm. Thus, it is on account of their innate ideas that men can get veridical to the external world that is governed by three immutable laws of nature, which God had implanted in nature, and of which He had also placed the innate notions in the mind. Besides, despite the metaphysical distinction that Descartes established between the mind and the body, he simultaneously considered them to be closely united in a human being. In the fifth part of the *Discours* Descartes had firstly divulged his anatomical explanation for the interaction between the mind and the body on account of his theory on the pineal gland, but he did not manage to convince any of his contemporaries or successors of the exceptional functions that he attributed to this tiny device.

Descartes had, thus, maintained that the pineal gland allowed the soul to effectuate movements in the body and vice versa for the body to generate sensations and passions

⁹ The following theses also reoccurred in Swartenhengst's disputations: Thesis 17 Nothing constitutes human nature beyond thought (cf. SWH 1670 th.4; id. DM5 c.8; id. PP1675 th.9-10, th.12). Thesis 20 We have a faculty by which we might take care never to err; error really being only in the will (cf. SWH S&E2 th.5, th.7-9). Thesis 22 Men have an adequate idea of God (cf. SWH DM5 c.12; for the translated theses from the resolution of 1676 cf. McGahagan 1976: 344-5).

in the soul. Despite the great detail in Descartes' anatomical description concerning this interaction in a human being, Descartes in the end had not truly explained the interaction between these two essentially heterogeneous substances: For how can an immaterial substance like the soul effectuate movement in a corporeal device? And how can the movements of the corporeal animal spirits be transformed into perceptions in the mind? In regard of the causal flow from the body to the mind Descartes later came up with an additional explanation, when he established that there is an innate faculty in the mind that already possesses these perceptions, which are produced *on the occasion* of certain corporeal motions.¹⁰ There is no point in defining Descartes as a body-mind occasionalist, if occasionalism is interpreted as a doctrine that introduces God as the only true causal agent. The fact, however, that Descartes did suggest such an innate faculty (that is inconsistent with some previous epistemological claims), as yet indicates that he was also looking for ways to illuminate his mind-body interactionism.¹¹

Hence, it may be concluded that Descartes himself was at least partially aware of the causal problems to which his occasionalistic successors reacted, who drew their conclusions one step further by introducing God as the only genuine causal agent in created substances according to varying degrees. Apart from perceiving the body as an occasional cause in regard to the mind, most occasionalists likewise perceived the body as an occasional cause on the level of its physical interaction with other bodies. Occasionalism to its fullest extent is when it is not only the body that cannot cause an effect in another body or in the mind; but when the mind can neither cause an effect in the body (and in certain cases not even within itself). The main originators of the occasionalistic doctrine were Johannes Clauberg (1622-65), Louis de la Forge (1632-

¹⁰ "Hence it follows that the very ideas of the motions themselves and of the figures are innate in us. The ideas of pain, colours, sounds and the like must be all the more innate if, *on the occasion* of certain corporeal motions, our mind is to be capable of representing them to itself, for there is no similarity between these ideas and the corporeal motions" (cf. *Comments on a Certain Broadsheet* in CSM, vol. 1: 304); "We make such a judgement not because these things transmit the ideas to our mind through the sense organs, but because they transmit something which, at exactly that moment, gives the mind *occasion* to form these ideas by means of the faculty innate to it" (cf. *Comments on a Certain Broadsheet* in CSM, vol. 1: 304; also cf. Cottingham 1993: 224).

¹¹ One remarkable aspect of Descartes' sudden introduction of our innate ideas of sensible impressions is that this does not correspond with his previous claim, that our innate ideas are clear and distinct, whereas the ideas that we derive from the senses are vague (cf. *Méditations* III). Another inconsistency appears from Descartes' proof for the existence of the material world, which was based on the exact fact that we cannot derive the ideas of sensible impressions from our own thinking nature. This argument loses in force if we all of a sudden innately possess such sensible ideas (cf. *Méditations* VI).

66), Géraud de Cordemoy (1626-84), Arnold Geulincx (1624-69), and Nicolas Malebranche (1638-1715). Despite the varying degrees of causal elimination that they introduced in the finite substances, a shared feature amongst these occasionalistic Cartesians occurred in that they all applied their causal doctrine to both the domain of body-mind as well as body-body causation. Hence, it may be concluded that these occasionalistic theories were not merely voiced as an *ad hoc* solution to Descartes' mind-body problem, because their propagators were genuinely concerned with a broader level of impotence in the created substances.¹²

At the end of section 3.1 it was discussed how Swartenhengst's teacher, Arnold Geulincx, deprived the body of its genuine causal force on account of his epistemic axiom: 'that what you do not know how to do, is not your action'. Seeing that for Geulincx consciousness was the criterion for action, the possibility of body-body interaction or body-mind interaction was hereby decisively excluded. Eventually this axiom also ruled out mind-body interaction in Geulincx's occasionalistic metaphysics, because finite minds do not know how they affect things according to his view. As yet, Geulincx believed that the body is still required for God to produce motions and their corresponding perceptions. But at the same time he criticised Descartes for ascribing a union to the mind and the body. For Geulincx the union of the mind and the body is in the first place the intention of God's will, and only in the second intention is it the interchange between action and passion. Besides, Geulincx also criticised Descartes for ascribing the power of motion to the will, since he believed that the human will can in no way affect the body or the external world. As yet, Geulincx did importantly preserve the ethical value of the freedom of the human will on the level of our intentions.¹³

God, thus, became the only genuine causal force in Geulincx's metaphysics, which made the mental and corporeal realm more directly dependent upon His will than had

¹² Even Descartes' own writings contained some occasionalistic hints on the level of body-body causation, but in this regard it is quite unclear to which extent Descartes believed that God directly participated as the only true cause in the individual causal transfers between bodies. Hence, I do not think that Descartes should be identified as a body-body occasionalist, nor as an occasionalist in general.

¹³ The following quotation from Geulincx's *Ethics* nicely illustrated his view concerning the freedom of the human will: "Just as a ship carrying a passenger with all speed towards the west in no way prevents the passenger from walking towards the east, so the will of God, carrying all things, impelling all things with inexorable force, in no way prevents us from resisting His will (as much as is in our power) with complete freedom" (ETH: 182).

been the case in Descartes' writings. Besides, Geulincx had classified the human and the divine mind under the concept of the universal Mind, which he regarded as distinct from the extended universe. Hereby he had reduced Descartes' tri-partition of the extended world, the thinking mind, and God to a two-partition of a thinking and extended realm (i.e. our minds belonging to the ontological sphere of the universal Mind). On this account he has frequently been considered as forbearer of Spinoza's monism, with whom he became to be associated during the early eighteenth century.¹⁴ This identification of the human with the divine mind was theologically dangerous, however, because if human souls are modes of the divine mind *and* incapable of moving matter, it becomes questionable whether God himself can still influence the course of nature.¹⁵

In section 3.2 Swartenhengst's references to Geulincx's occasionalistic metaphysics were discussed, which mainly appeared in his inaugural disputation from 1670; the first disputation *On Knowledge and Error*; the first disputation *On the World*; as well as a miscellaneous disputation from 1675. Swartenhengst most elaborately addressed Geulincx's occasionalistic metaphysics in his inaugural disputation from 1670, in which he elaborately explained the latter's theory of body-mind occasionalism. While Swartenhengst thoroughly addressed the occasionalistic causal transfer from the body to the mind, he hardly paid any attention to Geulincx's mind-body occasionalism in either this disputation or in any of the others.¹⁶ Besides, nowhere in this disputation did he mention Geulincx's famous epistemic axiom: 'that what you do not know how to do, is not your action'. This latter detail might, in fact, be interpreted as an indication that

¹⁴ Descartes established a tri-partition of God, the human mind, and the body; whereas Geulincx established the human mind as a mode of the universal Mind in opposition to the extended universe of which the human body is a part. Besides, apart from the individual, divisible, and finite bodies Geulincx also identified an infinitely extended and indivisible Body-as-such in his *Metaphysica vera*. Without making the ultimate step of accepting the body as part of the infinite divine substance, Geulincx's Cartesianism approached Spinoza's monism of the eternal substance and its temporal modes (cf. Ruler van 2003b: 326-7; Thijssen-Schoute 1954: 180).

¹⁵ This criticism that occasionalism could lead to the blasphemous conclusion that God no longer exerts any kind of causal force in the universe was, however, not expressed by Cartesian contemporaries, but it was firstly formulated by David Hume in 1739 (cf. Ruler van 2000: 390).

¹⁶ The only exception hereto being the following three statements that were scattered throughout the corollaries of his disputations, which are too scarce in number to draw any conclusions concerning Swartenhengst's personal support for Geulincx's mind-body occasionalism: "All people and all things necessarily obey God. On this account the proposition to obey Him is in itself useless, but the proposition to obey His law is good" (Appendix: Translations, 163, c.20; also cf. SWH 1670: c.20, ll. 27-8); "Whatever happens, happens necessarily" (Appendix: Translations, 183, c.5; also cf. id. NL3: c.5, l. 23; also cf. id. DM1: c.9, l. 11); "We can do nothing, if God would not want this" (Appendix: Translations, 210, c.8; also cf. id. DM1: c.8, l. 10).

Swartenhengst did not support Geulincx's occasionalistic theory on the level of the causal transfer from the mind to the body; for Geulincx had personally derived his mind-body occasionalism from the fact that the mind did not know how to conduct the most basic corporeal actions, which entirely depended upon the divine will.¹⁷

In Swartenhengst's epistemological and natural philosophical disputations the term 'occasion' is used to explain for the subjective sensory experiences that are generated in the mind upon the occasion of the body and its motions. As yet, God's true causal force at the expense of the body's occasional causal force was never addressed in these disputations. Hence, although I strongly suspect that Swartenhengst did genuinely adhere to Geulincx's body-mind occasionalism due to his frequent use of the term occasion, he did not fixate upon this concept in his general philosophical programme.

Chapter Four commenced with a discussion of the age-old history of the moral-juridical natural law tradition, and the process of increasing secularisation and naturalisation that occurred in natural jurisprudence from the seventeenth century onwards. Despite its late birth as an academic subject, the origin of natural law can be dated back to ancient Greek philosophy. Henceforth the concept of natural law adopted a central place in European theories on law, ethics, and politics for more than two thousand years. Underlying the concept of natural law is the notion that nature inherently contains the universal norms and standard of a teleologically directed moral order; with which nature had been endowed by either the divine will or reason; and which principles are known to mankind by virtue of their universally implanted rational faculty.

The Christian tradition unambiguously copied this innate intellectual character of natural law, which was grounded on divine law and thereby surpassed all positive law in terms of its normative validity. During the thirteenth century Thomas Aquinas (1225-1274) famously attempted to unite Christianity with Aristotle's teleological naturalism;

¹⁷ "It is clear from this that, even when certain parts of my body do move in accordance with my will, I do not make this motion [...] At the command of my will (here the action is within me) my hands may move in a corresponding way (and here the action is outside me, and now translated into my body, not indeed by me but by him who can do this)" (ETH: 33-4).

and he formulated his paradigmatic definition of natural law ‘as the rational participation of mankind in God’s eternal law (*lex aeterna* or *ius divinum*)’.¹⁸ Aquinas’ intellectualist stance - in which the principles of divine law were immanently available to man’s rational faculty - evoked many discussions, because it kindled the fear that God had been bound to a pre-existing rational order when implementing these truths in nature.¹⁹ This firstly imposed a question mark concerning the absolute freedom of the divine will at the time of creation, but in later centuries the intellectualist-voluntarist debate also started to revolve around the question whether God still possessed the power to intervene in His rationally-ordained course of nature after creation.²⁰

An important contribution to the early modern natural law tradition was made by Hugo Grotius (1583-1645) with his publication of *De iure belli ac pacis* in 1625. Just like Aquinas, Grotius established himself as a straightforward intellectualist, since he believed that the human mind can deduce moral prescripts from nature by a sure process of reasoning. In contrast to the theologically-grounded natural law theories of his predecessors, however, Grotius no longer placed the foundation of natural law in either divine law or Revelation. To the opposite, Grotius in the *Prolegomena* explicitly distinguished divine law from natural law. Divine law, according to Grotius, had originated from God’s free will; whereas natural law can be deduced from the rational and sociable principles of human nature. The secularised foundation that Grotius hereby established for his natural law theory was frequently interpreted as a threat against theology, because it undermined God’s traditional role as lawgiver. Grotius most

¹⁸ “But because the rational creature partakes thereof in an intellectual and rational manner, therefore the participation of the eternal law in the rational creature is properly called a law, since a law is something pertaining to reason, as stated above” (Aquinas *Summa Theologica* 2.1 quaest. 91, reply on 3).

¹⁹ In 1245 Aquinas had established a distinction between God’s absolute power (*potentia absoluta*) and his ordained power (*potentia ordinata*), so that he could clarify the relation between God and natural law. In 1277 the Franciscan order opposed to Aquinas’ view on the comprehensibility of the world, which according to their opinion composed a threat to God’s freedom. By implementing an objective rational order in the world God would thereby also subject Himself to these rules, which placed a restriction to His absolute and/or ordained power. The fear for such reasoning had been motivated by the Aristotle-interpretation of Avicenna and Averroes, whose readings allowed for the conclusion that there is an independent rational order. The Franciscans opposed to this possibility by defending God’s absolute power, and by supporting the supremacy of the divine will over His intellect (cf. Armogathe 2008: 264-9; Osler 1994: 10-11, 16-18; Vermij 1999: 113-16).

²⁰ This was the exact question that had been raised by Descartes’ mechanical physics, as was discussed in Chapter Two.

explicitly compromised himself with his notorious *etiamsi daremus*.²¹ Even though the intellectualist-voluntarist debate had presently lost much of its momentum, Grotius' assumption concerning a pre-existing rational order on the natural level involved important implications for God's freedom. Although Grotius simultaneously stressed the inevitable agreement between natural and divine law, the publication of his *De iure belli ac pacis* marked the onset of a secularising tendency in moral-juridical natural law.

By the middle of the eighteenth century natural law had completely lost its claim to divine legislation, since by then it had become a moral principle that humans could derive from nature on a purely rational basis. Henceforth the influence of the divine legislator was abandoned, and a concept of natural law was developed that followed Grotius' *etiamsi daremus* in the literal sense. Besides, whereas positive law had previously been considered as just and virtuous in itself, it obtained the meaning of a contingent and arbitrary command during the seventeenth and eighteenth century. This meant that positive law was no longer objectively just and right, but as yet absolutely valid in the modern state; whereas natural law had lost its divine origin and was, therefore, no longer binding in the absolute sense. This ever-widening separation between positive and natural law resulted in the exclusive predominance of positive law in the legal domain. Henceforth the traditional application of natural law in its moral-juridical sense was gradually abandoned, and replaced by the modern meaning of natural law (or law of nature) in its physical application as causal regularity in the late eighteenth century.

In section 4.3 the emergence of the mathematical-physical laws of nature during the seventeenth century was discussed, of which René Descartes (1596-1650) is frequently considered to have been the founding father. The rise of the term law in the domain of natural philosophy corresponded with the start of the Scientific Revolution and the breakthrough of the worldview of matter in motion. The question remained, however, why in contrast to the current secularisation in the domain of natural jurisprudence; many modern natural philosophers grounded their laws of nature on a theological

²¹ "What we have been saying [concerning natural law] would have a degree of validity, even if we should concede that which cannot be conceded without the utmost wickedness, that there is no God [...]" (Grotius *Prolegomena* 11).

voluntarism. When Descartes for the first time publically discussed his laws of nature in his *Discours de la méthode* in 1637, a certain uneasiness was still felt with the notion of laws that could be universally applied to inanimate objects. Therefore, Descartes strongly reaffirmed the voluntaristic origin of these laws of nature in God's free will. On the basis of the causal efficacy that could be derived from these physical laws, however, it was very difficult to conceive how God could suspend His own dictates without compromising the order of the universe that He had freely installed. Thus, despite Descartes' efforts, the theological voluntarism on which he grounded his natural philosophy did not counter-act its deterministic consequence in the actual course of nature. The questions that were raised by his mechanical physics went beyond the medieval intellectualist-voluntarist debate, because the theological implications of Descartes' immutable laws of nature superseded the mere implications of an inherent rational order. Now, the problem centred on the static and deterministic nature of the divine will in the everyday course of all physical events after creation.

Hereupon the chapter continued with an analysis of Swartenhengst's personal natural law theory in section 4.4, which was preceded by a discussion of Swartenhengst's predecessors in the ethical-political tradition at Leiden. In this regard special attention was paid to the *Ethics* of Swartenhengst's tutor Arnold Geulincx, which left a particular stamp on Swartenhengst's disputations. In his ethical tuition Geulincx developed an original theory, that matched the content of his occasionalistic metaphysics, completed the gap of a Cartesian ethics, and combined various Stoic but also Christian influences, despite its overall modern character. The posthumous publication of Geulincx's *Ethics* consisted of six parts concerning virtue in general; his four cardinal virtues (diligence, obedience, justice, and humility); the particular virtues in relation to ourselves, God, and other men; and the passions.

In his *Ethics* Geulincx considered the human will as free, but he did not believe it possible for the human mind to exert any actual causal force upon the body or the world in general. According to Geulincx, my human condition is not dependent on the operation of my own will, but it is the will of God which makes everything happen. Hereby he reduced man's participation in the world to the role of a mere spectator. In

Geulincx's occasionalistic worldview all men and things, thus, necessarily behave in accordance with God's wishes. Although humans can no longer physically disobey God, they are yet morally obliged to agree with God's law and reason on the level of their intentions. Hence, it is my moral obligation to allow my will to actively coincide with God's will, although certain occasions remain when my will does *not* coincide with God's will. For these situations Geulincx imposed the ethical axiom that: 'when it is not in my power to do anything, I should not want anything'. With this ethical axiom Geulincx did not mean to say that humans should adopt a passive attitude, however, but he intended for them to actively resign themselves to their human condition.

Throughout his *Ethics* Geulincx propagated a selfless attitude for human beings, who should never be guided by self-love or the passions, but merely by their obedience to reason and God. This ethical objective was most strongly expressed in the cardinal virtue of humility, which Geulincx identified with the disregard humans hold for themselves out of the love of God and reason. The selfless dimension of Geulincx's ethics deviated sharply from the emphasis on self-preservation in early modern natural law theory. Although Geulincx's ethics was completely opposed to this modern emphasis on self-preservation, his views were – nevertheless - likewise based on an exceedingly rationalist and naturalist background. Geulincx, thus, believed that: 'the same reason that reveals to us the truths of physics also enjoins us in ethical matters'; and even more, 'that a proper understanding of the physical aspects of the human condition is a prerequisite for our understanding of ethical matters'.²² As yet, Geulincx never personally addressed the topic of natural law, but his interpretation of the law of reason closely reminds the reader of the traditional concept of intellectual natural law.

²² "For the Reason that discloses to us the truths of Physics is the same reason that enjoins on us Ethics" (ETH: 22); "Moral and Ethical matters presuppose natural and Physical matters; for the concept of the human condition is Physical, and without knowledge of Physics nothing can be stated either truly or falsely of moral matters, as the whole of Ethics and all obligations are derived from inspection of oneself" (ETH: 183). Especially in his discussion of the seven moral obligations, Geulincx repeatedly placed a strong emphasis on the state of the body and its surrounding physical components in his description of the human condition: "This is because, unless I provide the wherewithal to secure food, or to shelter myself from the inclemencies of the weather (which is the point of the Third Obligation), the Fourth Obligation will not come into force. A condition of life is to be secured which may suffice to maintain the body in good order" (ETH: 48); "For if the incessant collisions of bodies in this world damage some part of *my* body (as can all too easily happen), [...] I necessarily feel pain" (ETH: 54).

Geulincx's primordial focus upon man's moral obligation towards God and reason made it difficult to translate his views into a political theory, as was yet attempted by Swartenhengst. An important theme in the analysis of the overall content of Swartenhengst's disputations on natural law, was how he combined the humble and selfless dimension of Geulincx's occasionalistic ethics, with a simultaneous focus on man's worrisome condition in the state of nature and the vital importance of self-preservation. At some points Swartenhengst's political theory obtained a rather physical appearance, because he grounded his ethics on the following axiom: 'that anything, to the extent that it remains of its own in the same state, must therefore from our part not be disturbed from it'. This ethical axiom seems reminiscent of René Descartes' first law of nature, which creates the impression that Swartenhengst was developing a legal theory that could be equally applied to both the physical and the ethical realm.²³

Swartenhengst thus considered natural law as innately available to human beings, and in accordance with Geulincx he believed that we are absolutely obliged to its dictates. The view that the principles of natural law are innately available to the human mind was an originally Stoic notion, which had continued throughout history from Cicero to the Church Fathers to Thomas Aquinas. When Descartes had elaborated his metaphysics and physical laws of nature, he similarly grounded them on an innate intellectualism. Whereas Descartes had refrained from extending the validity of these innate truths to the moral domain; Swartenhengst and Geulincx, in fact, did extend the application of the rationally deducible laws of nature to the moral domain. A remarkable aspect of Swartenhengst's natural law theory is that he made no reference to God as the divine legislator of this law, which might have been related to the prescribed distinction between the theological and philosophical education at Leiden. Just as Geulincx Swartenhengst, thus, based his concept of natural law on rational and natural grounds.

²³ "Hoc igitur attributo (*dictando* scilicet) *ratio* seu lex naturae quam latissime sese extendit, utpote etiam tam ad res physicas, quam ad illas quae nos metipsos, ac alios extra nos homines concernunt, et respectum ad illos dicunt" (SWH NL1: th.7, ll. 9-11). In English this quote can be translated as follows: "Thus, through this attribute (namely *dictating*) *reason* or the law of nature extends itself as far as possible, as much with physical things, as with those which concern both ourselves and other humans beyond us, and which instruct us to take account of them." (Appendix: Translations, 167, th.7). The fact that Swartenhengst tried to establish a connection between physical and moral regularities had in itself not been controversial, since the connection between God's natural and moral order had already been established in Protestant natural philosophy (cf. Kusakawa 2008: 105-21).

Just as in Geulincx's *Ethics*, the concept of love comprised an important element throughout Swartenhengst's disputations. The duty of love towards others can be fulfilled by uniting oneself with others in social life, which is a natural need that also occurs in the other animals. Besides, humans also have a genuine need for society, which allows them to live peacefully by virtue of the recognition of the mutual bond and friendship among individuals. Apart from his focus on the importance of love between humans for the successful continuation of society, however, Swartenhengst simultaneously emphasised the importance of the preservation of the corporeal state of the individual in his axiom that repeatedly reoccurred throughout these disputations.²⁴ At first sight this axiom may seem reminiscent of Thomas Hobbes' political theory, but it may also have referred to Descartes' first law of motion.²⁵ Despite his emphasis on the preservation of the body, Swartenhengst simultaneously based his natural law theory on the principle of the Golden Rule. Thus, the preservation of both the entire society and the individual played an important role in Swartenhengst's natural law theory.

In his political theory Swartenhengst, thus, closely resembled Geulincx's *Ethics*, to whose occasionalistic metaphysics he, nevertheless, only once referred in these disputations. This can probably be explained from the fact that Geulincx's occasionalism reduced the efficacy of man's free will to the intentional level, and therefore it did not allow for a workable political theory. It is yet clear that Swartenhengst and his students had relied heavily upon Geulincx's *Ethics* in these disputations, which were ingrained with a moral and social component. Swartenhengst's natural law theory was opposed to the Hobbesian emphasis on self-preservation and the absolutism that increasingly started to dominate natural law theory from the middle of the seventeenth century onwards. Because Geulincx himself did not truly discuss the concept of natural law, Swartenhengst sought additional inspiration in such ancient authors as Aristotle and Cicero, but also with more recent contemporaries such as Hugo Grotius and René Descartes.

²⁴ “[...] may it remain in this state in which it is, nor should it be driven away from it in as much as it is on our part”(Appendix: Translations, 174, th.5; SWH NL2: th.5, ll. 17-18. Also cf. SWH NL1: th.3, th.8; id. NL2: th.2; id. NL3: th.5).

²⁵ Descartes' first law of nature established ‘that each individual part of matter continues in the same state, so long as collision with others does not force it to change that state’ (cf. *The World* Ch.7 in CSM, vol. 1: 93; *Principles* II.37 in Miller: 59).

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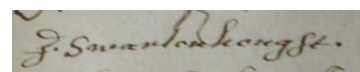
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