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Domesticating Descartes, Renovating Scholasticism: Johann Clauberg And The German Reception Of Cartesianism

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Abstract

This article studies the academic context in which Cartesianism was absorbed in Germany in the mid-seventeenth century. It focuses on the role of Johann Clauberg (1622-1665), first rector of the new University of Duisburg, in adjusting scholastic tradition to accommodate Descartes' philosophy, thereby making the latter suitable for teaching in universities. It highlights contextual motivations behind Clauberg's synthesis of Cartesianism with the existing framework such as a pedagogical interest in Descartes as offering a simpler method, and a systematic concern to disentangle philosophy from theological disputes. These motivations are brought into view by situating Clauberg in the closely-linked contexts of Protestant educational reforms in the seventeenth century, and debates around the proper relation between philosophy and theology. In this background, it argues that Clauberg nevertheless retains an Aristotelian conception of ontology for purely philosophical reasons, specifically, to give objective foundations to Descartes's metaphysics of substance. In conclusion, Clauberg should not be assimilated either to Aristotelianism or to Cartesianism or, indeed, to syncretic labels such as 'Cartesian Scholastic'. Instead, he should be read as transforming both schools by drawing on a variety of elements in order to address issues local to the academic milieu of his time.

Keywords: Johann Clauberg; Cartesian Scholastic; German Cartesianism; Protestant Scholasticism; Early Modern Aristotelianism; University of Duisburg; Ontology; German Reformed Education.

1. Descartes In Germany

A century and a half ago, Francisque Bouillier observed that 'Cartesianism did not have as great an influence in Germany as in Holland or France.'¹ Descartes's appearance in Germany faced unique circumstances. It occurred in the midst of ongoing projects to craft distinct Protestant identities driven by the demands of religious apologetics in the closing years of the Thirty Years' War. It also had to confront a culture of university philosophy which had become deeply entangled in the religio-political disputes dividing German states. That Cartesianism did make

¹ *Histoire de la philosophie cartésienne* (Paris, 1868), 405.

gradual inroads there to become an important current by the late-seventeenth century owed, above all, to the efforts of Johann Clauberg (1622-1665) in situating and disseminating Descartes's thought. The object of this essay is to understand the motivations and outcomes of those efforts. In particular, this essay asks why Clauberg preserved certain aspects of the prevailing Aristotelian framework even as he embraced many of Descartes's novelties. In the process, it examines the mediating role in this confluence of ideas of the educational culture of the early modern German Reformed community and, specifically, of the circumstances surrounding the creation of the University of Duisburg, where Clauberg taught and wrote.

The label 'Cartesian Scholastic' (and its variants) has been used to describe Clauberg's work at least since Josef Bohatec's *Die cartesianische Scholastik in der Philosophie und reformierten Dogmatik des 17. Jahrhunderts* (1912). It has remained in use in recent scholarship.² The label arises out of an interpretive challenge presented by Clauberg's writings. On the one hand, he positioned himself as an ardent proponent of a bold new philosophy as being superior to the traditional one in various respects. In a polemical juxtaposition of Cartesianism and school philosophy, *Unterschied zwischen den cartesianischer und der sonst in Schulen gebräuchlicher Philosophie* (1658; henceforth *Unterschied*), Clauberg underscores the distance between the two frameworks in dramatic terms. The Cartesian philosophy, he boldly declares, is as different from the Scholastic or Jesuit as the Roman Catholic Church is from the Evangelical

² Eugenio Viola, 'Scolastica e Cartesianesimo nel pensiero di J. Clauberg', *Rivista di Filosofia Neo-Scolastica* 67 (1975), 247–66; Francesco Trevisani, *Descartes in Germania: La ricezione del Cartesianesimo nella facoltà filosofica e medica di Duisburg* (Milan, 1992), 97; Vincent Carraud, 'L'ontologie peut-elle être cartésienne? L'exemple de l'ontosopha de Clauberg, de 1647 à 1664: de l'ens à la mens', In *Johannes Clauberg (1622-1665) and Cartesian Philosophy in the Seventeenth Century*, ed. Theo Verbeek (Dordrecht, 1999), 13–38; Winfried Weier, 'Leibnitiana bei Johannes Clauberg', *Studia Leibnitiana* 32 (2000): 21–42; Andrea Strazzoni, 'The Foundation of Early Modern Science: Metaphysics, Logic and Theology', (Ph.D. Diss., Erasmus University Rotterdam, 2015).

or Reformed.³ More generally, Clauberg valorizes the difference and modernity of Cartesian thought and downplays its points of continuity with Scholasticism. Indeed, his defenses and elaborations of Descartes in titles such as *Defensio cartesiana* (1652), *Initiatio philosophi sive dubitatio cartesiana* (1655), and *Paraphrasis in meditationes cartesianae* (1658) would introduce the next few generations of German intellectuals to Cartesianism and establish Clauberg's reputation as a key representative of the new philosophy. G.W. Leibniz, notably, esteemed Clauberg as 'the most learned of the Cartesian sect' and as 'being clearer than the master'.⁴ Christian Wolff similarly pronounced Clauberg as the best interpreter of Descartes, and credited him with having initiated an emendation of metaphysics which Leibniz further advanced.⁵

At the same time, Clauberg's systematic treatises such as *Metaphysica de ente* (1664) and *Disputationes physicae* (1664) retain much of the form, vocabulary, and substance of the scholastic tradition. His conception of metaphysics as a theory of being and its transcendental attributes, and his penchant for exhaustive conceptual distinctions has struck many readers as squarely in the tradition of school philosophy, the target of self-styled intellectual revolutionaries such as Descartes. Indeed, Clauberg himself sometimes suggests that his work should be viewed as a synthesis, describing his *Logica vetus et nova*, for instance, as '*aristotelico-cartesiana*'. To some extent, he can plausibly be read as aligned with various mid-seventeenth century attempts to blend new and old philosophies, a project sometimes termed by its exponents as *novantiqua*. Several of Descartes's early followers and sympathizers, in fact, attempted to integrate his views

³ *Unterschied zwischen den cartesianischer und der sonst in Schulen gebräuchlicher Philosophie* (Duisburg, 1658), 4-6; (cited as *Unterschied*, by page number).

⁴ *Sämtliche Schriften und Briefe*. ed. Berlin-Brandenburgische Akademie der Wissenschaften (Berlin, 1923-), II.1.112; II.1.15 (cited by series, volume, and page). It is worth noting that Descartes's complete works were not published in Germany until 1692.

⁵ *Philosophia prima sive ontologia* (Renger, 1730), §7n. Wolff prominently cites Clauberg, alongside Aristotle, Descartes, and Leibniz, throughout the work.

with the reigning orthodoxy. Johannes de Raey, one of Clauberg's teachers in Holland, undertook such a project in his *Clavis philosophiae naturalis, seu introductio ad contemplationem naturae Aristotelico-Cartesiana* (1654). Not without good reason, the labels 'Cartesian Scholastic' and 'Cartesian Aristotelian'--since Aristotle's name was intimately tied to university or scholastic philosophy--intend to capture this dual character of Clauberg's self-presentation.⁶

In fact, a tension between narratives of rupture and continuity is evident even in Descartes's own presentation of his relation to the past. In concluding his account of material nature in *Principles of Philosophy*, for example, Descartes states that he has not used any principle 'which was not accepted by Aristotle and by all other Philosophers of all periods: so that this Philosophy is not new, but the oldest and most commonplace of all', a claim he repeats

⁶ The words 'Aristotelian' and 'Scholastic' are deeply entangled. For many early modern detractors of university philosophy, labels such as 'school philosophy', 'Aristotle', and 'Scholastic' are interchangeable terms of abuse connoting empty word-play, pedantry, or obstacles to the progress of knowledge. As we shall see in Section Four, Clauberg has a more nuanced view of the relationship between Aristotle, Descartes, and Scholasticism. To preview, Clauberg hopes to recover an Aristotle who is distinct in key respects from how the earlier scholastic tradition had understood him. On the topic of the varieties of Aristotelianisms in the Renaissance, see Charles B. Schmitt, 'Towards a Reassessment of Renaissance Aristotelianism', *History of Science* 11 (1973), 159–193. See also Edward Grant, 'Ways to Interpret the Terms "Aristotelian" and "Aristotelianism" in Medieval and Renaissance Natural Philosophy', *History of Science* 25 (1987), 335–358, who highlights the elasticity of the Aristotelian framework and its ability to absorb new challenges and influences as a feature of the tradition throughout its history: 'Aristotelianism often included conflicting earlier and later opinions simultaneously. It was always a domain of both traditional and innovative concepts and interpretations and was therefore inevitably elastic and absorbent' (352). See Stephen Menn, 'The Intellectual Setting', in *The Cambridge History of Seventeenth Century Philosophy*, eds. Daniel Garber and Michael Ayers, 33–86 (Cambridge, 1998), 38–47, for a survey of anti-Aristotelian trends in the sixteenth and seventeenth centuries. See Constance Blackwell and Sachiko Kusukawa, eds., *Philosophy in the Sixteenth and Seventeenth Centuries: Conversations with Aristotle* (New York, 1999), for treatments of Aristotle's continuing philosophical significance in the period.

to the Jesuit Charlet.⁷ On other occasions, however, Descartes boldly declares that his new principles of physics ‘destroy the principles of Aristotle’.⁸ The autobiographical account in *Discourse on Method* confirms the image of Descartes as a lone intellectual revolutionary seeking the truth from the pure light of nature, unfettered by confusions transmitted through pedantry.⁹ As Tad Schmaltz remarks, Descartes presented himself to his readers under two conflicting guises: ‘The first of these was that of the innovator, someone who sets aside the study of the past in order to start afresh. But when it suited him, he could also wear the mask of the traditionalist, someone who is faithful to the views of the ancients, and of Aristotle in particular.’¹⁰ Given Descartes’ own ambivalence about his relation to the history of philosophy, contemporaries could fairly have characterized his thought as either preserving continuity with tradition or as a radical break.

I shall not call into question the plain fact that Clauberg drew on both Descartes and Aristotle. Instead, my specific interest lies in the reasons why, given his enthusiastic embrace of Descartes and the fact that his contemporaries and immediate successors saw him as a champion of Cartesianism, he borrowed foundational conceptions from Aristotle. My suggestion is perhaps disappointingly obvious: Clauberg found Aristotle philosophically valuable. Faced with the textual situation, many commentators have labeled Clauberg’s work ‘eclectical’, and attributed that character of his writings to pressures of confessional politics, pedagogical convenience, or

⁷ AT VIIIA.323, CSM I.286; AT IV.141, CSMK 238. Descartes’s works are cited as [AT], by volume and page number: *Oeuvres de Descartes*. 2nd ed. 11 vols. ed. Charles Adam and Paul Tannery (Paris, 1964-1974); and [CSM(K)], by volume and page number: *The Philosophical Writings of Descartes*, 3 vols. eds. and trans. John Cottingham, Robert Stoothoff, Dugald Murdoch, and Anthony Kenny (Cambridge, 1984-1991).

⁸ Letter to Mersenne, 28 January, 1641, AT III.298, CSMK 173.

⁹ AT VI.7–8, CSM I.114–115.

¹⁰ *Early Modern Cartesianisms* (New York, 2017), 64.

an isolated interest in Cartesian natural science. By contrast, this essay calls attention to Clauberg's attraction to the intrinsic philosophical merits of Aristotle's metaphysics considered purely as ontology. Clauberg initiates a project of embedding Descartes's first philosophy--a science of the first known beings, namely God and the human soul--within a more fundamental theory of being and its common attributes, a science of ontology considered as the doctrine of being *qua* being. One of the specific goals of Clauberg's metaphysics of being is to lay objective foundations for a Cartesian philosophy of nature on the principle of contradiction rather than on the experiential knowledge of God and the thinking self. With Clauberg, a new Aristotle--partly real, partly imagined--begins to appear in German philosophy.

Several intellectual and practical motivations underlie Clauberg's thought, from the question of reforming the arts curriculum to that of the relation between philosophy and theology. After setting the cultural-historical stage, this essay turns to Clauberg's philosophical interest in uniting Descartes and Aristotle. The next section focuses on the early-seventeenth-century situation in the German Reformed community, specifically in Duisburg, the site of a new university where Clauberg was appointed rector and where conditions were especially favorable for the pedagogical innovations Clauberg envisioned. Section Three considers several explanations for the ecumenical nature of Clauberg's work and finds them wanting in one or another respect. Section Four sketches the positive view, that Clauberg's ontology is designed to subsume the Cartesian theory of substance in general, and of created substance in particular, under a universal theory of being. Section Five concludes with some reflections on the continued use of labels such as 'Cartesio-Scholastic' and 'eclectical' to describe Clauberg's thought.

2. Clauberg And Duisburg

Clauberg's philosophical fortunes are intimately tied to his brief career at the University of Duisburg, founded 1655. They are equally bound up with the pedagogical goals of the German Reformed (Calvinist) community, especially under the patronage of the Brandenburg electors after Johann Sigismund's conversion to Calvinism in 1613. As a result, Clauberg's contributions are central not only to Duisburg's association with German Cartesianism in the latter half of the seventeenth century but also with the link that German Cartesianism came to have with irenical theology, and with an emphasis on piety rather than doctrinal issues in religion.

Clauberg's familiarity with Descartes, in fact, was acquired at close quarters. In 1644, after having studied in Solingen and Bremen, Clauberg moved to Groningen, where Cartesianism had recently won an important victory: the previous year, the Stadtholder of Groningen had ordered the Utrecht authorities to cease the suppression of Cartesian philosophy in the wake of the theologian Gisbert Voetius's efforts to have it condemned. Following extended stays in England and France (1646-1648), Clauberg returned to Holland to continue his studies with Johannes de Raey, an early convert to Cartesianism. Clauberg earned his place in Cartesian lore by drawing up a report of Descartes's conversation with Frans Burman at Leiden in 1648. The following year, he was appointed professor of philosophy and theology at the gymnasium in Herborn (Hesse-Nassau), an important center of Calvinist learning.¹¹ His tenure there, however, was an unhappy one. Besides the burdens of a heavy teaching load, and not having his salary paid on time, Clauberg found the intellectual climate in Herborn unsatisfying. An emphasis on practical philosophy and theology, and a commitment to Aristotelian and Ramist logic as the

¹¹ It was in Herborn in 1602 that Johannes Piscator (1546-1625) published the Reformed Church translation of the Bible. The Herborn academy served as a model for Calvinist schools in Central Europe. For a comprehensive study of the importance of the Herborn academy for German Calvinism during the Reformation, see Gerhard Menk, *Die hohe Schule Herborn in ihrer Frühzeit (1584-1660)* (Wiesbaden, 1981).

only approved methods of instruction meant that Clauberg was not permitted to develop the new Cartesian logic, metaphysics, and natural philosophy he had learned in Holland.¹² Clauberg, along with his colleague and friend Christoph Wittich (1625-1687), left Herborn for Duisburg around Christmas 1651, bringing with him several students. He would spend fourteen highly-productive years in the Rhineland until his death in 1665.

Already in the 1550s, the Duke of Jülich-Cleves-Berg, Wilhelm the Rich, had proposed the founding of a new university in Duisburg. The right to confer degrees was granted to the Duke by a papal bull and imperial privilege in the 1560s.¹³ As originally envisioned, the university was to have a standing faculty of ten to eleven professors, including three for theology, three for law, two for medicine, and two to three for the humanities. When the university finally opened a century later, scarcity of funds meant that only half that number were appointed.¹⁴ Importantly, Brandenburg's acquisition of the Duchy of Cleves in 1614 meant that the new university was established as a Reformed institution rather than as a Catholic one. Its creation thus accorded with the stated intent of the General Synod of the Reformed Church of Cleves to provide more academies for their youth in order to discourage them from leaving their community for the better-established network of Jesuit institutions.¹⁵ After Friedrich Wilhelm assumed the reins of the Brandenburg court in 1640, the estates of Cleves wasted no time in

¹² Günter von Roden, *Die Universität Duisburg* (Duisburg, 1968), 159–160; Theo Verbeek, 'Johannes Clauberg: A Bio-Bibliographical Sketch', in *Johannes Clauberg (1622-1665) and Cartesian Philosophy in the Seventeenth Century*, ed. Theo Verbeek (Dordrecht, 1999), 185–186.

¹³ See Hubert Jedin, 'Der Plan einer Universitätsgründung in Duisburg 1555/64', in *Die Universität Duisburg*, ed. Günter von Roden (Duisburg, 1968), 1–32, for the initial plans, framed between 1555-1564, for the university.

¹⁴ Werner Hesse, *Beiträge zur Geschichte der frühern Universität in Duisburg* (Duisburg, 1879), 17.

¹⁵ August Tholuck, *Vorgeschichte des Rationalismus* (Halle, 1853), 246–247; Trevisani, *Descartes in Germania*, 19–20.

impressing upon the young elector of the urgent need for new universities in Reformed territories.¹⁶ The argument was a strong one: at the time, Brandenburg could count only one university--Frankfurt (Oder)--as an organ of the court's confession. Plans had advanced by the time Clauberg's move to the Duisburg gymnasium was announced in May 1651, and it is likely that he was apprised of the imminent creation of the university while still at Herborn.¹⁷ On 14 October, 1655, the university was inaugurated with much festivity. Clauberg, along with Martin Hundius (1624-1666) and Christopher Wittich, was declared doctor of theology and delivered the first rectoral address the following day.¹⁸

Circumstances in the wake of the Thirty Years' War meant that the new university was poised to become a leading center of higher learning in the Reformed community. It was also well-positioned to implement some of the pedagogical reforms that were being proposed around this time. The few Calvinist degree-granting institutions there had been in German principalities had suffered greatly during the war. Heidelberg's unparalleled status at the dawn of the seventeenth century as the most important center of Calvinist theology and philosophy came to an abrupt end in 1622 when Tilly's Catholic League army overran the city. The extensive Bibliotheca Palatina was handed over to Pope Gregory XV, and the once-distinguished university entrusted to the Bavarian Jesuits. Heidelberg was only reestablished as a Calvinist institution in 1652, and its subsequent recovery was slow.¹⁹ Another important Calvinist

¹⁶ Hesse, *Geschichte*, 13–14.

¹⁷ Trevisani, *Descartes in Germania*, 25.

¹⁸ Hesse, *Geschichte*, 35-6.

¹⁹ Peter Classen, and Eike Wolgast, *Kleine Geschichte der Universität Heidelberg* (Berlin and Heidelberg and New York, 1983), 24-5; Volker Press, 'Kurfürst Maximilian I. von Bayern, die Jesuiten und die Universität Heidelberg im Dreißigjährigen Krieg 1622-1649', in *Semper Apertus. Sechshundert Jahre Ruprecht-Karls-Universität Heidelberg 1386-1986*, ed. Wilhelm Doerr (Berlin and Heidelberg, 1985), 314–370; Notker Hammerstein, 'The University of Heidelberg in the Early Modern Period: Aspects of Its History as a Contribution to Its

university, that of Marburg, met a similar fate in 1624 as the forces of the Lutheran Ludwig V of Hesse-Darmstadt, an imperial ally, conquered the town. The university's entire professoriate was disbanded and replaced by professors from the Lutheran gymnasium at Gießen. Marburg would remain a Lutheran institution until 1653 after which it, like Heidelberg, would only slowly regain some of its earlier prestige.²⁰

The Academia Viadrina in Frankfurt-on-the-Oder, meanwhile, enjoyed the protections that accompanied its status as the only university in Brandenburg confessionally aligned with the court. Immediately after his conversion to Calvinism, Johann Sigismund had begun to lean upon Frankfurt's theological faculty as an instrument for propagating his new faith. The elector tightly controlled promotions and appointments, which quickly gave the university a Reformed identity.²¹ Yet, perhaps because of the success of Brandenburg's so-called Second Reformation in Frankfurt, by mid-century the university came to express an ideological uniformity and stability that made it resistant to further curricular innovation. Under the patronage of the Brandenburg electors, the University of Frankfurt gradually became the center of a Reformed theology of irenicism and its attendant political tendency toward religious toleration.²² Irencism emphasized doctrinal unity across confessional lines rather than the polemics of difference

Sexcentenary', *History of Universities* 6 (1987), 118–120. Heidelberg's reputation rested on influential Calvinist thinkers such as Bartholomaeus Keckermann (1572–1608) and Abraham Scultetus (1566–1625).

²⁰ H. Hermelink and S.A. Kaehler, *Die Universität Marburg von 1527–1927* (Marburg, 1927), 220–222. Marburg had been home to notable academics such as Rudolph Goclenius (1547–1628) and Johann Hartmann (1568–1631), who held the first professorship in chemistry in Europe.

²¹ Bodo Nischan, *Prince, People, and Confession* (Philadelphia, 1994), 128–130.

²² For irenicism at Frankfurt and the concomitant rise of toleration in Brandenburg, see Nischan, *Prince*, ch. 10. For irenicism within the German Calvinist movement in the 1620s and 1630s, see Bodo Nischan, 'Reformed Irencism and the Leipzig Colloquy of 1631', *Central European History* 9 (1976), 3–26. To be sure, irenicism gained adherents in Lutheran theology in this period as well, notably with the Helmstedt theologian Georg Calixt (1586–1656).

dominating theological writing in Germany. But, while a spirit of innovation marked Frankfurt's theological faculty, the university proved less hospitable to change in its philosophical curriculum. The case of Johannes Placentinus, a Bohemian-Polish mathematics professor and enthusiastic supporter of Descartes, underscores the rigidity in the arts curriculum. By encouraging his students to defend Cartesian and Copernican theses in natural philosophy, besides defending them himself, Placentinus incurred the anger of the philosophical faculty, which sought to have him censured. Only the intervention of Elector Friedrich Wilhelm quelled the controversy over Placentinus' continued appointment.²³

Among the Reformed universities of Germany, then, Duisburg was uniquely prepared to institute wide-ranging educational reforms, especially with respect to the relationship between the philosophy and theology faculties. The polemical spirit of Protestant theology, which had prevailed in the sixteenth and early-seventeenth centuries, had gradually co-opted philosophy for its traditional role of handmaiden to theology.²⁴ Lutheran theologians such as Christoph Scheibler as well as Calvinists such as Clemens Timpler found in traditional metaphysics powerful resources for the articulation and defense of theological doctrines, above all, of the increasingly sensitive and symbolic issue of the interpretation of the Eucharist.²⁵ By contrast,

²³ See Pietro D. Omodeo, 'Central European Polemics over Descartes: Johannes Placentinus and His Academic Opponents at Frankfurt on Oder', *History of Universities* 29 (2016), 29–64, for Placentinus' career and the quarrel at Frankfurt between 1653-1656.

²⁴ The *ancilla theologiae* view of metaphysics is prominent in, for instance, Christoph Scheibler's influential *Opus metaphysicum*, which begins with an extended defense of the value of metaphysics for defending articles of faith; Christoph Scheibler, *Opus metaphysicum*, vol 1. In *Christian Wolff: Gesammelte Werke, Materialien und Dokumente*, III Abt., Bd. 142.1 (Frankfurt, 1665, reprint Hildesheim, 2015), Bk. I, Proemium, cII). Fittingly, Scheibler, known to the seventeenth century as the 'Protestant Suárez', would abandon a career as professor of metaphysics at Gießen in order to devote his energies to composing defenses of Lutheran orthodoxy.

²⁵ Perhaps no issue came to symbolize confessional identity in the period as much as the ritual and interpretation of the Lord's Supper. Lutherans insisted on the real presence of Christ in the

irenicism did not have as much use for a well-defined metaphysics of substance and accident for its theses. Irenical theologians typically deemphasized metaphysical commitments entailed by one or another manner of receiving the sacraments and, instead, underscored the common significance each Church attached to the personal faith of the recipient.

The scholastic philosophical framework, accordingly, becomes less relevant for a conception of religiosity anchored more in piety than for one centered on doctrinal clarity. A turn toward lived faith figures prominently in the federalist or covenantal movement within Calvinism associated with Johannes Cocceius (1603-1669), the Leiden theologian whose version of pietistic Calvinism represents a sharp contrast to the scholastic Calvinism of Voetius.²⁶ Cocceian federalism marks a shift away from doctrinal issues and toward the practice of piety. For Cocceius, the proper Christian attitude toward revelation is one of devotion rather than the juridical one prevailing among theologians such as Voetius and at the synods. Cocceius' influence on Duisburg's theologians--Clauberg, Wittich, and Hundius--is well-attested, and a link between federalism and Cartesianism begins to emerge in Duisburg in the 1650s.²⁷ The anti-scholastic direction of Duisburg theology would align quite naturally with the natural philosophical orientation of Descartes's thought.

sacrament, while Calvinists assigned an analogical or symbolic meaning to the elements. For the doctrinal details of the dispute, see Nischan, *Prince*, 138-40; and Cees Leijenhorst, 'Place, Space and Matter in Calvinist Physics', *The Monist* 84 (2001), 523-534.

²⁶ For a study of Cocceius's federalism, see Willem J. van Asselt, *The Federal Theology of Johannes Cocceius (1603-1669)* (Leiden, 2001). For Cocceius' influence in the Rhineland and his significance for the development of German pietism, see Heinz Schneppen, *Niederländische Universitäten und Deutsches Geistesleben* (Münster: Aschendorff, 1960), 85-92. Voetius, it will be recalled, had sought a broad condemnation of Cartesianism in the 1640s.

²⁷ Tholuck, *Vorgeschichte*, 248; Heinrich Heppe, *Geschichte der Evangelischen Kirche von Cleve-Mark und der Provinz Westphalen* (Iserlohn: J. Bädeker, 1867), 187; Trevisani, *Descartes in Germania*, 31; Schmaltz, *Cartesianisms*, 75-6. Schneppen, *Niederländische Universitäten*, 89, writes: 'After 1650 the anti-scholastic biblical theology of Cocceius and Leiden Cartesianism found in each other a common enmity toward the Aristotelian tradition.'

A shift toward pietism also features in prominent programs for educational reform in the period. The Moravian pedagogue Jan Amos Komensky's (1592-1670; Latin: Comenius) universalist vision of Christian education, for example, aims above all to prepare Christian youth for the afterlife through an efficient, practical curriculum. In four six-year periods, beginning with the 'mother school' of infancy and ending with the university, Comenius' *Magna didactica* lays out a comprehensive educational program through which 'the entire youth of both sexes... shall quickly, pleasantly, and thoroughly become learned in the sciences, pure in morals, trained in piety, and in this manner instructed in all things necessary for the present and future life.'²⁸ In particular, Comenius displays remarkable hostility toward classical learning. 'Christian schools', he thunders, 'should not resound with Plautus, not with Terence, not with Ovid, not with Aristotle, but with Moses, David, and Christ.'²⁹ For, if the new universal schools are 'to be truly Christian schools, the crowd of Pagan writers must be removed from them.'³⁰ Comenius' warnings against indulging in the subtleties of Aristotelian philosophy, in particular, echo the sentiment of earlier Calvinist pedagogues such as Johannes Piscator at the prominent Herborn gymnasium. Studies of scholastic intricacies rooted in the philosophy of Aristotle, for Piscator, 'are worthy of a free man and have their purpose; but they are for the most part more subtle than many can comprehend, and less learning than this seems necessary for understanding Christian doctrine.'³¹ At the turn of the century, the Herborn academy, which served as the model for

²⁸ *The Great Didactic*, ed. and trans. M.W. Keatinge (London: Adam and Charles Black, 1910), Title page.

²⁹ Comenius, *Great Didactic*, ch. XXIV, §20.

³⁰ Comenius, *Great Didactic* ch. XXV, §1. See Ulrich G. Leinsle, 'Comenius in der Metaphysik des jungen Clauberg', in *Johannes Clauberg (1622-1665) and Cartesian Philosophy in the Seventeenth Century*, ed. Theo Verbeek (Dordrecht, 1999), 1–12, for some sources of Comenius' influence on Clauberg via Tobias Andreae and the Dutch businessman Louis de Geer.

³¹ Cited in Howard Hotson, *Johann Heinrich Alsted, 1588-1638: Between Renaissance, Reformation, and Universal Reform* (Oxford, 2000), 20–21.

Reformed education in German territories, had effectively codified a turn away from classical humanism in favor of useful knowledge, toward praxis rather than theory.³² On this conception, while an arts education is certainly valuable for cultivating civic morals, for learning languages needed for reading medical, legal, and theological texts, and for developing effective rhetorical skills, it should not be considered essential preparation for the defense of articles of faith.³³

Finally, the emergence of a policy of inter-confessional toleration in Brandenburg, resulting from a stalemate between the predominantly Lutheran estates and the Reformed court, further dulled the need for subtle theological dogmatics. The Hohenzollern court, beginning with Johann Sigismund's conversion, had at first hoped for a thorough reform of Brandenburg society along Calvinist lines. But, as they gradually discovered, Lutheranism had become deeply entrenched among the laity as well as the greater part of Brandenburg and Prussian nobility. While the elector's envisioned reforms took root in places such as Frankfurt (Oder), the great majority of Brandenburg's population remained Lutheran and actively resisted court-backed efforts to supplant orthodox ritual practices with Calvinist ones. A policy of toleration resulted as a compromise following the court's recognition of the failure of Johann Sigismund's attempt comprehensively to reform Brandenburg.³⁴ By mid-century, the Great Elector Friedrich Wilhelm

³² Hotson, *Alsted*, 22–3. It should be borne in mind, at the same time, that opinions on classicism and on scholastic metaphysics were not quite so uniform in Reformed schools at the turn of the century. We can note the example of the Steinfurt gymnasium, founded in 1588 on the model of Herborn, where Clemens Timpler (1563-1624) initiated a tradition of Protestant Scholastic treatises on metaphysics with his *Metaphysicae systema methodicum* (1604). For a detailed study of the development of scholastic metaphysics in the Protestant context between 1580 and 1640, see Ulrich Leinsle's *Das Ding und die Methode* (Augsburg, 1985).

³³ Comenius, *Great Didactic*, ch. XXII, §1, clearly takes an instrumental view of language education: 'Languages are learned not as forming in themselves a part of erudition or wisdom, but as being the means by which we may acquire knowledge and may impart it to others.'

³⁴ That toleration in Brandenburg resulted as a compromise in Brandenburg is Nischan's, *Prince*, main thesis: 'In the end, the Hohenzollerns had to settle for a compromise that allowed their court Calvinism to coexist with the principality's popular Lutheranism; instead of calvinizing

would more enthusiastically embrace a policy of inter-confessional toleration, a policy which favored more ecumenical attitudes toward philosophy and eventually led to the emergence of a common evangelical identity in Germany.³⁵

In fact, pedagogical ease and a sharper separation of the spheres of faith and reason are two of the key virtues Clauberg attributes to Descartes. In *Unterschied* (1658), Clauberg lays out his clearest defense of Descartes's value in these respects. In the first place, the greater simplicity of Cartesianism, for him, rests in the fact that it is the product of a single mind. Using an extended urban planning metaphor (recalling Part 2 of Descartes's *Discourse on Method*), Clauberg applauds Descartes's individualism: whereas the scholastic philosophy is like a city built over a long period by many architects with varying tastes, so that lowly huts now stand beside grand palaces among crooked streets and winding alleys, the Cartesian system is like one that has been built from the ground up according to a single idea.³⁶ That it is the work of one individual is an advantage, for it frees Cartesianism from the confusions of past authors. Further, in contrast to the scholastic method, Descartes employs fewer and simpler rules such as the injunction to trust only clear and distinct perceptions, the analytic method of dividing any problem into parts, and the synthetic method of reconstituting parts by a step-wise, demonstrative procedure.³⁷ What's more, Cartesianism is based on only two substantial

Brandenburg, toleration resulted' (4). While toleration was state policy, it did not easily gain acceptance among Brandenburg's Lutheran subjects. Notker Hammerstein, 'Zur Geschichte der deutschen Universitäten im Zeitalter der Aufklärung', in *Res Publica Litteraria: Ausgewählte Aufsätze zur frühneuzeitlichen Bildungs-, Wissenschafts- und Universitätsgeschichte*, eds. Ulrich Muhlack and Gerrit Walther (Berlin, 2000), 16, observes that 'Lutheran Orthodoxy' reigned in the decades after the Thirty Years' War with detrimental effects on the reconstruction of German universities.

³⁵ This climate was present at the time of the founding of the university in Duisburg; von Roden, *Universität Duisburg*, 157–158.

³⁶ *Unterschied*, 7–8. Cf. AT VI.11–12, CSM I.116.

³⁷ *Unterschied*, 15–17.

principles--mind and body--and eliminates the complicated system of faculties and substantial forms.³⁸ Further, Cartesian philosophy has the advantage of training the understanding and equipping it with general tools by which one can extend knowledge to new discoveries. The scholastic method, by contrast, only teaches one how to argue and dispute existing matters.³⁹ Finally, Clauberg claims, Cartesian philosophy is more succinct and economical in its terminology, more easily translated into the vernacular German, and thus better suited for dissemination than the scholastic.⁴⁰ That Clauberg composes this polemical tract in German is itself noteworthy and underscores the reader's sense that the author's concern in promoting Descartes is as much pragmatic as it is philosophical.

In the second place, Clauberg recognizes in Descartes an important loosening of the tie between philosophy and theology. Interpreting it as a break from an older conception of philosophy as *ancilla theologiae*, Clauberg embraces Descartes's restricted treatment of theological matters to only as much as is required for certainty in natural knowledge.⁴¹ On this topic, he would have learned of Descartes's opinions first hand: to Burman, Descartes pointedly distinguishes the ethical and religious perspective from the metaphysical, and frames his discussion of God's mutability, and the nature of God's decrees, from the latter point of view. For articles of faith that depend on revelation, Descartes tells Burman, 'must not be subjected to our human reasoning'.⁴² Indeed, Descartes even suggests eliminating formal theological studies altogether, asking Burman whether 'you need to spend all this effort on theology, when we see

³⁸ *Unterschied*, 19–20.

³⁹ *Unterschied*, 49–51.

⁴⁰ *Unterschied*, 53–54.

⁴¹ *Unterschied*, 58.

⁴² AT V.166, CSMK 348; AT V.176, CSMK 350.

that simple country folk have just as much chance as we have of getting to heaven?’⁴³ To Mesland, similarly, Descartes declares: ‘I keep away, as far as possible, from questions of theology’.⁴⁴

In light of this confluence of philosophical and cultural factors, the conservative character of Clauberg’s works is striking. Clauberg himself, as we have seen, sharply distinguishes Cartesian philosophy from Scholasticism and declares his preference for the former in no uncertain terms. We have also seen how conditions in Reformed Duisburg in the 1650s presented Clauberg, educated in Holland and appointed rector of a brand new university, with the perfect opportunity to introduce curricular reform. In the post-war atmosphere of reconciliation and irenicism, Clauberg should not have felt such strong cultural pressures to toe intellectual lines established earlier in the century, whether that meant following Heidelberg Aristotelianism, or Herborn Ramism, for instance. That, despite his enthusiasm for Descartes’s innovations and the favorable circumstances for educational reform, Clauberg chose to characterize his logic as *aristotelico-cartesiana*,⁴⁵ to hold the *Posterior Analytics* in highest regard,⁴⁶ or to conceive the subject matter of metaphysics in decidedly anti-Cartesian fashion as being *qua* being,⁴⁷ invite a question as to his motives. We turn now to some actual and possible explanations for the apparent conservatism of Clauberg’s texts.

3. Cartesianisms (And Aristotelianisms) In Seventeenth-Century Germany

⁴³ AT V.176, CSMK 351.

⁴⁴ AT IV.119, CSMK 235.

⁴⁵ *Initiatio philosophi sive dubitatio cartesiana*, Ad Lectorem, in Johann Clauberg, *Opera omnia*, 2 vols, ed. Johann Schalbruch (Amsterdam, 1691), cited as [OO] by volume and page.

⁴⁶ *Initiatio philosophi sive dubitatio cartesiana*, Prolegomena, §29, OO II.1128.

⁴⁷ *Met. de ente*, §1–2, OO I.283.

As Francesco Trevisani has observed, the so-called ‘Cartesian Scholastic’ in seventeenth-century Germany, or the various attempts to reconcile Descartes with school philosophy, was not a monolithic phenomenon. Different readers were drawn to Descartes for different reasons. Medical doctors found in Descartes’s theory of motion and his corpuscularianism a promising new framework for the study of medicine. Others were drawn to Descartes’s separation of theology and natural philosophy. Still others attempted to marry Cartesian metaphysics with that of the Jesuit Scholasticism. In Germany, Trevisani emphasizes, Descartes showed different faces in different contexts so that no single intellectual phenomenon should be uniquely identified as ‘Cartesian Scholasticism’.⁴⁸

In this respect, the fortunes of Cartesianism mirror those of early modern Aristotelianism. Just as the medieval synthesis of Aristotelian philosophy with Catholic theology was transformed by the humanist and religious ideas of the sixteenth and seventeenth centuries, Descartes’s system underwent rapid fragmentation at the hands of his earliest followers. And, like the long history of Aristotle reception, the spread of Cartesianism inevitably involved deviation from the opinions of its namesake. In Protestant Germany and Holland, just as much as in Catholic France, Descartes’s legacy displayed a complex interaction of social and cultural factors with the putative deliverances of the light of reason. Three strains of Descartes reception in mid-seventeenth-century Europe furnish clues for understanding Clauberg’s version of domesticated Cartesianism. These are, first, the attraction of Cartesian natural philosophy for medicine;

⁴⁸ Trevisani, *Descartes in Germania*, 15-16: ‘The so-called Cartesian Scholastic is thus a less monolithic phenomenon as one might think. In particular, it is not so much a movement, if one understands by that an organized consciousness and a programmatic approach, which inclines to replace one scientific system, one vision by another system or another worldview.’

second, a methodological conservatism which favored the retention of Aristotelian logic in the universities; and third, the need to bring Cartesian metaphysics to bear on theological questions.

As scholars have noted, Cartesianism made its most successful early forays in European academia in natural philosophy and medicine.⁴⁹ This fact should have met with Descartes's approval, for the application of corpuscular physics in medicine was among his most important philosophical ends: 'the principal aim of my studies has been the conservation of health.'⁵⁰

Descartes's mechanistic hypothesis of the human body as a hydraulic machine was received in the context of medical advances originating in the famed Paduan school in the sixteenth century. The corpuscular account of matter and the quantitative analysis of motion offered deeper cosmological foundations for the new medical research, from Andrea Vesalius' emendations of the Galenic theory of fluids, to William Harvey's model of the circulation of blood, to Franz de le Boë's chemical theory of digestion. By the late-seventeenth century, doctors had situated Cartesian natural philosophy within medical research in the faculties at Louvain, Bern, Marburg, Halle, and Leiden.⁵¹ It was Duisburg's doctors of medicine, however, who paved the way for the

⁴⁹ Trevisani, *Descartes in Germania*, 16, identifies the promise of Cartesian mechanics for medicine as a key aspect of Descartes-reception: 'The corpuscular theory and the theory of motion symbolizes the best fruit of Descartes's thought, just as Sylvius' theory of digestion represents the best in biological research of the century.' And Schmaltz, *Cartesianisms*, 228: 'Though in the eighteenth century it was the engagement with Newtonian physics that was most prominent in the disputes over Cartesianism, initially issues concerning Cartesian medicine played an important role in the reception of Descartes.'

⁵⁰ Letter to Cavendish, October 1645, AT IV.329, CSMK 173–174. For the importance of medicine for Descartes's physics, see Thomas Steele Hall, 'Introduction', in *Treatise of Man*, ed. Thomas Steele Hall (Cambridge, 1974); Gary Hatfield, 'Descartes' Physiology and its Relation to his Psychology', in *Cambridge Companion to Descartes*, ed. John Cottingham (Cambridge, 1992), 335–370; Steven Shapin, 'Descartes the Doctor: Rationalism and Its Therapies', *British Journal for the History of Science* 33 (2000), 131–154; Annie Bitbol-Hespériès, 'Cartesian Physiology', in *Descartes' Natural Philosophy*, eds. Stephen Gaukroger, John Schuster, and John Sutton (London and New York, 2000), 349–382; Vincent Aucante, *La philosophie médicale de Descartes* (Paris, 2006).

⁵¹ Bitbol-Hespériès, 'Cartesian Physiology', 375–377.

second generation of Cartesian doctors in German universities such as Johann Jakob Waldschmidt (1644-1687) at Marburg, and Friedrich Hoffmann (1660-1742) at Halle.⁵² Clauberg, while not himself a medical doctor, promoted the cultivation of Cartesian medicine in his influential capacities as doctor of theology and rector of the university.

At the same time, Clauberg's interest in Descartes extends beyond medicine to metaphysics. Unlike medical professors in Frankfurt or Bern, who may have been content or compelled to bracket the more tendentious aspects of Descartes's system from those relevant to anatomy and physiology, Clauberg aspires to display the coherence of the system as a whole and to show how Cartesian mechanics and medicine are securely grounded in his metaphysics. In the context of Reformed learning, Clauberg's interest in Cartesian natural philosophy could reasonably be seen as a break from prevailing trends. Disaffection with Aristotle had already become widespread well before Descartes appeared on the scene, and Reformed authors in the first half of the seventeenth century had entertained several rivals to Aristotelian physics. Alsted's *Encyclopedia* gives an indication of some of these alternatives. He lists a Mosaic physics based on Genesis, a Rabbinical option founded on the Kabbala, an alchemical framework, and a 'poetical' physics consisting of interpretations of classical mythology.⁵³ None

⁵² See Trevisani, *Descartes in Germania*, chs. 2–3, for the introduction of Cartesian medicine in Duisburg's medical faculty.

⁵³ Hotson, *Alsted*, 36. Among the representatives of Mosaic physics at this time is Comenius, who develops in *Physicae ad lumen divinum reformatae* (1633) an account of nature rooted in a literalist reading of the Bible. See Ann Blair, 'Mosaic Physics and the Search for a Pious Natural Philosophy in the Late Renaissance', *Isis* 91 (2000), 32–58, for a study of Comenius' version of sacred physics. She notes the explicitly anti-Aristotelian motivations behind the genre: 'The specific expressions "pious philosophy" and "Christian philosophy," however, became current in the Renaissance to designate philosophies opposed to Aristotelianism' (34). Alchemical and magical theories of nature also experience a revival in this time with authors such as Giordano Bruno (1548-1600), Michael Maier (1568-1622), and Robert Fludd (1574-1637). Frances Yates, *The Rosicrucian Enlightenment* (Trowbridge, 1972), 111–113, credits Marin Mersenne with

of these, however, are Clauberg's projects. For him, the true promise of Descartes's physics rests in its presentation of a systematic alternative to the study of nature that is not founded on speculative readings of scriptures or mythologies. But, if this is right, Clauberg's reliance on Aristotelian concepts appears even more puzzling. Despite enjoying relatively wide latitude for innovation in his institutional context, Clauberg nevertheless subordinates Cartesian physics to an orthodox metaphysical scheme, one which, while not founded in scriptural or magical traditions, remained vitalist at its core. Clauberg's systematic target, one gets the impression, is larger than natural philosophy, for which he returns to Aristotle.

A second explanation of Clauberg's continued reliance on tradition appeals to the pragmatic demands of education. On this account, it would simply have been too burdensome to overturn existing modes of teaching and learning in favor of a new, as-yet untested method. Earlier in the century, in fact, the prominent Heidelberg philosopher and theologian Bartholomaeus Keckermann had defended an attitude of methodological conservatism on pedagogical grounds. Despite being a heterodox thinker on many issues, Keckermann nonetheless upheld the use of scholastic methods in his textbooks for the reason that, '[it is] better to teach methodically ordered traditional positions, even if erroneous and questionable, than as yet unmethodized new theories, even if true.'⁵⁴ Clauberg, one suspects, might likewise have recognized the pragmatic value of pouring new wine in old bottles. Indeed, it is for such reasons that he defends the dry pedantry of his *Paraphrasis in meditationes cartesianae*. While

having cleared the way for the rise of the Cartesian option through sustained attacks on Mosaic, Kabbalistic, hermetical, and magical approaches in natural philosophy.

⁵⁴ Cited in John Gascoigne, 'A Reappraisal of the Role of the Universities in the Scientific Revolution', in *Reappraisals of the Scientific Revolution*, eds. Robert S. Westman and David C. Lindberg (Cambridge, 1990), 214. For Keckermann's 'methodical Peripateticism' see Leinsle, *Ding und Methode*, 274–280, and Hotson, *Alsted*, 29–32.

praising the *Meditations* as the worthiest (*dignissimis*) of all of Descartes's works, Clauberg acknowledges the critics' charges that its unusual method and structure render it obscure. To remedy the situation, he proposes to make Descartes's arguments more accessible by departing from the order and style of the original and adjusting it for use in the schools (*ad scholarum usum magis accommodato*).⁵⁵

Methodological reasons, thus, appear as motives behind the apparent continuity with school philosophy of at least some of Clauberg's work. Yet, this cannot be the entire story either. For one thing, a great part of Descartes's philosophical legacy rests on his having provided a *systematic* alternative to scholastic orthodoxy. It was indeed common among Keckermann's generation of professors to weigh the substantive shortcomings of Aristotelian natural philosophy against the pedagogical ease of teaching a system of nature with well-elaborated cosmological foundations. But, as we have seen, by Clauberg's own reckoning, the appeal of Cartesian physics lies in its being an equally well-ordered, yet simpler and potentially more fruitful alternative to the Aristotelian.⁵⁶ Despite this opinion, he persists with interpreting Cartesian physical concepts in Aristotelian language. While there is certainly evidence for a form of methodological conservatism in Clauberg in keeping with earlier Calvinist professors, it sits uneasily with his modernizing aspirations.

The urgency of theological dogmatics has been offered as another possible explanation for Clauberg's adherence to tradition and, in particular, for his translation of Descartes into the idiom of Protestant school theology. In his path-breaking work, Bohatec submitted that the '*cartesianische Scholastik*' movement originated in a felt need to bring Descartes's ideas to bear

⁵⁵ *Paraphrasis*, Praefatio ad lectorem, OO I.346.

⁵⁶ For this point, see Gascoigne, 'Reappraisal', 215–216.

upon theological debates current in seventeenth-century Germany.⁵⁷ His view suggests that any new philosophical system could only have entered German academic discourse by proving its relevance to the most divisive theological issues of the time. Given the long history of Aristotle's involvement in Christian theology, which persisted in Protestant metaphysics in the seventeenth century, it was inevitable that Descartes's novelties would only find an attenuated role in religious polemics, as supplementing rather than supplanting traditional modes of argument. On Bohatec's proposal, Clauberg's primary interest lay in doctrinal issues of German Protestantism, and the wider *cartesianische Scholastik* phenomenon to which he belonged should principally be regarded as an 'apology for conservatism and orthodoxy.'⁵⁸

That the theological context was important to the reception of Descartes in Germany cannot be denied. This feature of early Cartesianism is also unexceptional--it resembles, for instance, the involvement of Cartesianism in disputes between Jansenists and Jesuits in France.⁵⁹ But, for our purposes, what bears emphasis is the particular conception of theology's relation to philosophy which Clauberg attributed to Descartes. This, as we saw in the previous section, was largely negative. Clauberg highlights a greater separation of philosophy and theology as an important virtue of Descartes's system. He interprets Descartes's restrictions on the involvement of natural reason in matters of faith as a demand for a minimalist rational theology: only as much appeal to God is legitimate as is needed for the possibility of certainty in knowledge of nature. Thus, for example, Clauberg embraces Descartes's invocation of God as the ground of the conservation of motion in the universe, an assumption needed for a realist interpretation of his

⁵⁷ Bohatec, *cartesianische Scholastik*, 4–5.

⁵⁸ Bohatec, *cartesianische Scholastik*, 20.

⁵⁹ See Tad Schmaltz, 'What Has Cartesianism to Do with Jansenism?' *Journal of the History of Ideas* 60 (1999), 37–56.

physics, together with his admonition against seeking specific divine intentions in natural phenomena. But, unlike dogmatic theologians in both the Lutheran and Calvinist camps, Clauberg neither develops a full-fledged rational theology nor pronounces on important issues such as the interpretation of the Eucharist or the doctrine of predestination. Responding in *Initiatio philosophi* (1655) to two of Descartes's theological critics, the Herborn professor Cyriacus Lentulus and the Leiden professor Jacob Revius, Clauberg praises Descartes's restrained treatment of theological matters both for its stance of intellectual humility and as being more conducive to piety.⁶⁰ In Descartes's separation of the domains of faith and reason, Clauberg would have found a view friendly to his own school of Calvinism, namely Cocceian federalism, with its emphasis on piety and suspicion of theological speculation.

Disentangling philosophy from school theology, in fact, was a goal Clauberg shared in common not only with Descartes but also with his teacher de Raey and his colleagues Wittich and Hundius.⁶¹ Clauberg's programmatic interest in the autonomy of philosophy from theology and, consequently, of the arts curriculum from the concerns of the theological faculty, cuts against Bohatec's opinion that Clauberg, and the German 'Cartesian Scholastic' movement generally, proceeded from a perceived need to bring Descartes to bear positively on theological issues. Indeed, arts teaching in the first ten years of the University of Duisburg followed the humanist tradition. It combined an emphasis on classical philology, rhetoric, and a virtue theoretic orientation in ethics and politics with a studied avoidance of metaphysical topics commonly leveraged in theological discussions. The first chair of philosophy at Duisburg,

⁶⁰ *Defensio cartesiana* ch. V, OO II.955-959.

⁶¹ De Raey, however, defended an even more radical separation, and in fact criticized Clauberg for leaving too much room for the intrusion of philosophical logic in the interpretation of Scripture; cf. Schmaltz, *Cartesianisms*, 77–83.

Johann Schultingh (1630-1666, appointed 1655-1656), concentrated his teaching in rhetoric and classical literature. His successor, Johann Georg Graevius (1632-1703, appointed 1656-1658), was likewise known for philological and historical scholarship.⁶² Given this relative disengagement of the Duisburg arts curriculum from the needs of doctrinal theology, Clauberg's positive metaphysical projects and his conciliatory natural philosophy should be understood independently of their significance for theology.

To be clear, I do not wish to suggest that theological concerns or motives of pedagogical convenience are entirely irrelevant for understanding Clauberg's blend of tradition and modernity. Still less should we expect to find a unique key which would cleanly unlock the various elements of Clauberg's system. As with any other *Rezeptionsgeschichte*, Descartes's legacy in seventeenth-century Germany is multi-faceted. It ought to be understood in terms of the social and institutional particularities of the time in addition to any generalities one might glimpse above the detail. What I do wish to call attention to, however, is that one aspect of the German reception of Descartes has not been sufficiently appreciated: a sincere interest in recovering Aristotle and showing his harmony with Cartesianism. Clauberg stands in the early stages of a movement in German philosophy which aimed to unify a formal theory of being with a quantitative science of nature, as represented by Aristotle and Descartes respectively. In this movement, we may count Erhard Weigel (1625-1699) at Jena, Weigel's student Johann Christoph Sturm (1635-1703) at Altdorf and, in a more advanced phase, Christian Wolff (1679-1754) at Halle. In the project of grounding the new natural science in a realist scheme of forms and essential powers, a conception of ontology borrowed from Aristotle plays a key role.

⁶² Clauberg himself taught ethics and politics in the arts curriculum; see von Roden, *Duisburg Universität*, 222–224.

Without discounting institutional and sociological reasons for the persistence of the Aristotelian tradition in even innovative German universities such as Duisburg, I propose that internal, philosophical reasons were also crucial for the continued relevance of Aristotle.⁶³

4. Descartes, Aristotle, And A New School Philosophy

In concluding his defense of radical Cartesianism in *Unterschied*, Clauberg reveals his aspirations for an Aristotelianism purified of its scholastic encrustations: ‘I have contrasted [*entgegen gesetzt*] the Cartesian philosophy with the school philosophy, but not with the Aristotelian in and of itself... which in many basic respects agrees more with the Cartesian than with the school philosophy.’⁶⁴ Unlike many of the *novatores* at the time, for whom Aristotelianism and Scholasticism had become interchangeable labels for the common ills of academic learning, Clauberg aims to distinguish the two, and to retrieve the former for the project of constructing a new philosophical framework. We are naturally led to ask: what are these agreements between Descartes and Aristotle which Clauberg hopes to uncover? The systematic reason for Clauberg’s synthesis of Descartes and Aristotle requires disambiguating three meanings of metaphysics in order to underscore Clauberg’s interest in ontology as distinct from theology on the one hand and from first philosophy on the other. Clauberg’s ontology, or general theory of being, undergirds an objective science of created being, or natural philosophy.

⁶³ To this extent, I am in agreement with Pius Brosch, *Die Ontologie des Johannes Clauberg* (Greifswald, 1926), 9, that Clauberg deliberately bucked the anti-Aristotelian tendencies of his time.

⁶⁴ *Unterschied*, 65: ‘Allein dieses muß ich noch einmahl dem Leser einschärffen, daß ich der Cartesianische philosophie der Schulphilosophie entgegen gesetzt, nit aber der Aristotelischen an und für sich selbst in massen beweißlich ist, daß diese in vielem hauptstücken mehr mit der Cartesianischen als mit der Schulphilosophie übereinstimme.’

Clauberg conceives ontology⁶⁵ as a *scientia Catholica*, a universal science which takes its subject matter as being *qua* being, or being considered apart from any particular thing or kind of thing.⁶⁶ The significance of this definition lies in its contrast with two other meanings of metaphysics available from Aristotle. In various places in the sprawling work which has come down to posterity under the title *Metaphysics*, Aristotle describes the object of the science as divine matters, thus as theology. But, in other places, it is to be a science of the principles requisite for knowledge in the special sciences such as biology or politics, a project Aristotle calls ‘first philosophy’. These are apparently distinct from a third meaning, that of a science of being abstracted from all species of things, thus, of being insofar as it is being, or ontology.⁶⁷ Aristotle’s attempts to define the sought-after, foundational discipline (which he never labels ‘metaphysics’) are equivocal. Even setting aside its meaning as a ‘divine science’ dealing with immaterial, unchangeable things--a meaning of great consequence for the development of medieval Scholasticism--it is unclear whether metaphysics is to be a general inquiry into being

⁶⁵ Clauberg is not the first to use the term ‘ontology’. Goclenius had coined the term in his *Lexicon* of 1613, where it is defined as ‘philosophia de ente’. For a history of the origin of the term, see José Ferrater Mora, ‘On the Early History of ‘Ontology’, *Philosophy and Phenomenological Research* 24 (1963), 36–47.

⁶⁶ *Met. de ente*, §1, OO I.283.

⁶⁷ *Met.* I.2 (Alpha) 982b29–983a12: ‘For the science which it would be most meet for God to have is a divine science, and so is any science that deals with divine objects; and this science [i.e. metaphysics] alone has both these qualities.’ And in *Met.* IV.2 (Gamma) 1003b19–1003b22, Aristotle describes metaphysics in the sense of ontology: ‘Now for every class of things, as there is one perception, so there is one science, as for instance grammar, being one science, investigates all articulate sounds. Therefore to investigate all the species of being *qua* being, is the work of a science which is generically one.’ A third sense, labeled ‘first philosophy’, in *Met.* IV.2 (Gamma) 1004a2–a9: ‘And there are as many parts of philosophy as there are kinds of substance, so that there must necessarily be among them a first philosophy and one which follows this.’ In *Met.* VI.1 (Epsilon) 1026a28–33, first philosophy seems to be synonymous with the science of being *qua* being. Aristotle’s works are cited by title, book, chapter, and Bekker numbers. Translations are from *The Complete Works of Aristotle*, 2 vols., ed. Jonathan Barnes (Princeton, NJ, 1984).

without reference to individual things or species of things, or whether it is instead to be a science of the special sciences, as general physics might stand with respect to mechanics or statics.⁶⁸

In *Metaphysica de ente*, at any rate, Clauberg identifies the third of these senses, ontology, as its topic. With Clauberg, ontology gains currency as general metaphysics, a science of the common predicates of being applied univocally to corporeal and incorporeal, to finite and infinite beings. He aims for a purity of ontology which surpasses that of Descartes's conception of first philosophy as the doctrine of the first known beings. Descartes's meditations on *prima philosophia* are directed toward knowledge of God and the immortality of the soul, as he makes clear in the dedicatory letter to the doctors of the Sorbonne.⁶⁹ In the Preface to the Reader to the Latin edition of the *Meditations*, Descartes equates treating the topics of God and the human mind with undertaking the 'whole of first philosophy'.⁷⁰ While modern scholars have sometimes emphasized the natural scientific motives of Descartes's *Meditations*, to a contemporary reader concerned to distinguish ontology from first philosophy, Descartes's prefatory remarks about the starting point of his philosophy could have suggested a conflation of two distinct subject matters.⁷¹ In the terminology that would become standard in the next century, Descartes's conception of first philosophy could appear to run together the special metaphysics of psychology, cosmology, and theology with a general metaphysics of categories and principles.

⁶⁸ See Charles H. Lohr, 'Metaphysics', in *The Cambridge History of Renaissance Philosophy*, eds. Charles B. Schmitt, Quentin Skinner, Eckhard Kessler, and Jill Kraye (Cambridge, 1988), 537–638, for a history of the problem of defining metaphysics in the Medieval and Renaissance periods.

⁶⁹ *Meditations on First Philosophy*, AT VII.1, CSM II.3.

⁷⁰ *Meditations on First Philosophy*, AT VII.9, CSM II.8 (translation modified).

⁷¹ An oft-cited piece of evidence for the primacy of natural science over metaphysics in Descartes comes from his remark to Marin Mersenne that his *Meditations* contain 'all the principles of my physics' (28 January, 1641, AT III.397–398, CSMK 173).

For a reader such as Clauberg, the science of ontology ought to be a universal discipline concerned with an analysis of being without regard to problems specific to uncreated as opposed to created, spiritual as opposed to material being. The being and attributes of God, the human mind, or the physical world are, for Clauberg, further, metaphysical topics to be treated under their distinct suppositions.⁷² Ontology aspires to a plane of intelligibility unconditioned by, for instance, possible experience or the indubitable consciousness of one's own existence. It is a science of the categories of discursive thought prior to Cartesian first philosophy as an introduction to substantive metaphysics. As such, it is intended to furnish a common conceptual framework for discourse about any domain of reality. Jean École has described this feature of *Metaphysica de ente* as an attempt to 'secularize' ontology.⁷³ In the history of Aristotelianism, we might add that Clauberg's ontology represents also the recovery of a secularized Aristotle.

Aristotle's theory of categories provides Clauberg with the basis for a general concept of reality under which Descartes's novel approach to the concepts of God and the human soul can be treated. *Ontosophia*, thus, brings Descartes's notion of substance under a superstructure of possible being, or whatever can be the object of rational discourse. Clauberg identifies three significations of the term *ens*. In its most general signification, 'being is whatever can be thought or said', which includes discourse about non-being (*nihil*) as well as chimeras.⁷⁴ As Clauberg suggests with his examples, it is this sense of being that is expressed in the dialecticians' term

⁷² In the Prolegomena to *Metaphysica de ente*, Clauberg pointedly distinguishes 'theosophia' or 'theologia' from 'ontosophia' or 'ontologia', the former being a special science of God and the latter as 'going over being in general' (*circa ens in genere versatur*) (OO I.281).

⁷³ 'La place de la *Metaphysica de Ente, Quae Rectius Ontosophia* dans l'histoire de l'ontologie et sa reception chez Christian Wolff', in *Johannes Clauberg (1622-1665) and Cartesian Philosophy in the Seventeenth Century*, ed. Theo Verbeek (Dordrecht, 1999), 66.

⁷⁴ *Met. de ente*, §6, OO I.283: 'Ens est quicquid quovis modo est, cogitari ac dici potest. Alles was nur gedacht und gesagt werden kan. Ita dico Nihil, & cum dico *cogito*, est illud in intellectu meo.'

‘theme’ (*thema*) and is even sometimes meant by philosophers when they use the term *ens* without further specification.⁷⁵ In its widest range, the concept ‘*ens*’ allows Clauberg to accommodate, and go beyond, a Cartesian identification of being with possible knowledge. For Clauberg, unlike Descartes, even non-being can be thought, even though it does not have positive, objective reality. Descartes himself, as Clauberg surely knew, objects to Burman that an ‘idea of nothing is purely negative, and can hardly be called an idea.’⁷⁶ By contrast, Clauberg is willing to include in the scope of *ens* whatever can become the subject of rational discourse: fictitious entities, conventional objects of history or geography such as the ‘the Middle Ages’ or ‘the Baltic Sea’, and even *nihil*. Being extends, one might say, to the bounds of discursivity, not just to the bounds of possible objects of knowledge.

Narrowing the semantic range, Clauberg approaches the Cartesian conception of knowable reality. In his second sense, being signifies something (*aliquid*) that provides determinate content for thought, or that which does not involve logical contradictions such as ‘four-sided circle’ or ‘leaden gold-coin’.⁷⁷ Determinate being thus arises from the recognition of a logical opposition between positive reality and what is purely privative, an opposition in which lies also the origin of the principle of contradiction. *Aliquid* excludes mere beings of reason (*entia rationis*) and concerns those contents which are objects of logical operations such as definition, division, or inference.⁷⁸ It is this sense of being that is proper to the mathematical sciences of arithmetic and geometry when, for example, one contemplates the essence of a

⁷⁵ As Strazzoni, ‘Foundation of Early Modern Science’, 67, notes, in the *Logica vetus et nova*, Clauberg identifies ideas with *themata*, either simple or complex propositions. Being in the most general sense, thus, can exclude from its sphere concrete objects in a narrower sense.

⁷⁶ ‘Conversation with Burman’, AT V.153, CSMK 338.

⁷⁷ *Met. de ente*, §38, OO I.289.

⁷⁸ *Met. de ente*, §40, OO I.289.

triangle or a chiliagon and discovers their immutable properties. For Clauberg, as for Descartes, there are primary truths which can be known with certainty simply by considering the meanings of the terms in which they are expressed, or by reducing propositions to identity statements.

Aliquid signifies the domain of determinate possibilities. Thus, it is narrower than the sphere of the merely thinkable and sayable, yet broader than that of the actual.

Finally, in its strictest sense (*magis propria significatione*), being coincides with Descartes's idea of substantial reality. In this third Claubergian sense, being signifies thing (*res*) or real being (*ens reale*), as when one thinks of a substance together with its modes, such as a mind distinguished from its faculty of thought, or a body from its attribute of extension.⁷⁹ Clauberg defines substance in agreement with the Aristotelian and Cartesian senses of something which is not lacking for its existence and is the subject of accidents.⁸⁰ In its meaning as *res* or *substantia*, being applies to the essences of both created and changeable, and uncreated and unchangeable substances. It thus captures the subject matter of the sciences of nature on the one hand and of theology on the other.⁸¹ Under this threefold understanding of the core concept of general metaphysics, and especially under its third sense as substantial being, Clauberg builds a familiar apparatus of the common attributes of beings such as essence and existence, sameness and difference, whole and part, truth and falsity, or goodness and evil, and of their relational attributes such as causation and signification. While abstracting away from every special discipline, Clauberg's *ontosophia* aims to serve as a universal conceptual scheme for each one of them, whether belonging to the book of material nature or to the book of the human mind.

⁷⁹ *Met. de ente*, §42, OO I.290.

⁸⁰ *Met. de ente*, §44, OO I.290: '*Substantiae*, id est, rei quae ita existit, ut aliquo ad existendum subjecto non indigeat, opponitur *Accidens*, quod in alio existit, tanquam in subjecto.'

⁸¹ *Met. de ente*, §45, OO I.290.

Indeed, it leaves open the possibility of a science of a perfect or infinite mind, or a rational theology, of a substance in the most proper sense insofar as God is considered as the absolutely self-sufficient source of all reality.⁸²

Yet, ontology does not demand the elaboration of a divine science any more than it compels the articulation of a science of nature. Clauberg's actual projects in the latter domain and conspicuous silence on the former indicate a systematic upshot of this way of relating Descartes's substance-mode metaphysics with Aristotelian category theory. Using Clauberg's framework, one may certainly choose undertake a special metaphysics of rational theology. But, within the same conceptual scheme, one may instead direct one's energies to physical science or psychological science, as Clauberg does in his *Disputationes physicae*, for instance. For his part, what Clauberg stresses as the positive value of Cartesianism has to do with its application to the study of nature and of the human mind. Its negative value consists in its restrictions on rational theology to only as much as is required to support first principles relevant to the study of creatures. To the extent that a broadly Aristotelian framework for understanding nature as an ordered, changeable reality can accommodate the principles of Cartesian science, we can make sense of Clauberg's enigmatic claim that Aristotle and Descartes have more in common than meets the eye. Indeed, his explication of Cartesian science in Aristotelian terms initiates a fruitful program in German natural philosophy of reinterpreting the new, quantitative science of nature under the strongly objectivist character of his ontology. For Clauberg, the basic categories of physical nature are not drawn from a divine guarantee of the veracity of clear and distinct perceptions delivered to an indubitably existing self but rather from a primitive opposition

⁸² *Met. de ente*, §164, OO I.310: 'Deo multo magis definitio & nomen adeoque idea Substantiae convenit, quam Creaturae.'

between being (*ens*) and non-being (*nihil*). The objectivity conferred by the discovery of the nature of the self and the certainty of its ideas lies at a further remove from the absolute objectivity lent by a general conception of being founded upon the principle of contradiction. This Aristotelian ontological scheme, as Trevisani rightly notes, has as its principal goal the secure development of natural science in the context of the arts curriculum and in medicine, unimpeded by theological considerations.⁸³

To be sure, the envisioned marriage of Descartes and Aristotle is not without philosophical problems. As an objective science of nature considered as a structured totality, Clauberg's ontology presumes the reality of forms and qualities in the created world. We can treat the problem of the forms of natural bodies, of the variety of species commonly found in *res extensa*, as a lens through which the putative harmony of Aristotle and Descartes gets strained. Whereas Descartes prefers to characterize matter geometrically in terms of quantitative extension, Clauberg readily identifies extension with the quality of impenetrability borrowed from Aristotelian physics. Extension as impenetrability becomes synonymous here with *materia prima* which, in scholastic physics, designates the first requisite to constitute a body as a substance. *Materia secunda*, by contrast, is that which is the subject of accidents of corporeal substances and, thus, designates matter together with a definite form or species.⁸⁴ It is controversial, to say the least, whether such an interpretation of extension would be acceptable to Descartes, who objects vigorously to the Aristotelian treatment of bodies as unities of matter and structured sets of qualities, or substantial forms, determining them as instances of oaks or swallows or any other natural kind. While Clauberg agrees with Descartes's charge that

⁸³ Trevisani, *Descartes in Germania*, 90.

⁸⁴ *Disp. phys.* IV, §§15–17, OO I.58.

substantial forms are unintelligible, occult notions, he nonetheless remains committed to the reality of species in virtue of the existence of individuals of those kinds.⁸⁵ The Aristotelian principle that natural reality is organized into fixed species characterized by stable, real qualities and causal relations continues to underpin Clauberg's interpretation of Descartes's quantitative conception of corporeal being.⁸⁶ The problem of corporeal forms, or of how the concept of body considered essentially as continuous quantity could be differentiated into objective species forms, was never fully resolved by Descartes. Three-dimensional, movable extension was to be the essence of all bodies, while the sensible qualities associated with them were conceived as relational properties partially dependent upon suitably positioned human observers. In Descartes's picture, since all bodies, from trees to birds to chairs, are characterizable as differently shaped parcels of geometrical extension, it is difficult to treat oaks and swallows as essentially distinct kinds of bodies, their distinct, characteristic appearances notwithstanding.

Clauberg was only the first of German philosophers of the early modern period to appeal to Aristotle's concepts of form and matter to address problems in Descartes's cosmology. Attempts to bring Aristotle to bear on Descartes, and vice versa, assumed various guises, of which space permits me to offer only the briefest of sketches. Erhard Weigel, professor at Jena, takes a rather different interpretation of Cartesian extension. Where Clauberg begins with an identification of quantitative extension with the quality of impenetrability, Weigel instead conceives Cartesian extension as prime matter, and form as a passive modification of the latter. But extension, for Weigel, is not an independently existing substance at all. Instead, extension,

⁸⁵ *Disp. phys.* XII, §§3-4, OO I.80.

⁸⁶ See Christia Mercer, 'Johann Clauberg, Corporeal Substance, and the German Response', in *Johannes Clauberg (1622-1665) and Cartesian Philosophy in the Seventeenth Century*, ed. Theo Verbeek (Dordrecht, 1999), 147-159, for a more detailed treatment of Clauberg's response to the problem of corporeal substances in Descartes.

for him, is identical to space considered as an aptitude (*aptitudo*) of the mind to receive the forms of finite things.⁸⁷ Weigel, like Clauberg, remains committed to the reality of universal species of bodies. But, unlike Clauberg, his path to the reality of forms is an idealistic one grounded ultimately in God's mind as the source of the mathematical conceptions received in human minds.⁸⁸ Weigel's student Johann Christoph Sturm, professor at Altdorf, adopts a similarly conciliatory stance between Descartes and Aristotle through creative reinterpretations of both. Sturm's physics begins with the Aristotelian principles of form, matter, and privation, but also incorporates distinctively Cartesian theses such as a rejection of final causes in physics and an occasionalist model of causation.⁸⁹ He construes the actuality-conferring substantial forms and real qualities of the Latin Aristotelian tradition as heuristics, or subjective means for conceiving changes in bodies but not as constituting the essences of material substances. Aristotle's prime matter, for Sturm, is, remarkably, not merely potential being but actual being, which he identifies with the concept of body, a position that should be acceptable to neither Aristotle nor Descartes.⁹⁰ By the time Christian Wolff would compose his treatises on physics and cosmology in the 1720s and 1730s, such collocation of Aristotelian and Cartesian ideas in German university philosophy had become the norm rather a sign of innovation. Clauberg can justly be seen as standing at the origin of a movement of furnishing general ontological foundations to Cartesian physics, of underlaying Descartes' theological and psychological points of departure with a general theory of being.

⁸⁷ *Philosophia mathematica, Theologia naturalis solida* (Jena, 1693), 11: 'Patet itaque, quod Spatium utrumque veluti materialiter (substantialiter) sit nihil; sed formaliter sit aptitudo conceptibilis'.

⁸⁸ Weigel, *Philosophia mathematica*, 52.

⁸⁹ *Physica conciliatrix* (Nürnberg, 1687), 9–10; 11–12.

⁹⁰ See Bohatec, *cartesianische Scholastik*, 130–34.

5. Clauberg A Cartesio-Scholastic?

Undeniably, Clauberg and those in his milieu drew on elements of Cartesian as well as Aristotelian thought. A century ago, this circumstance led Bohatec to coin the label *cartesianische Scholastik* to describe this phenomenon in seventeenth-century German universities. But, while the label may render a hermeneutical convenience for the purposes of situating Clauberg within larger intellectual currents of the seventeenth century, it becomes less useful once we treat him seriously as a thinker in his own right. If we wish to read Clauberg for his substantive philosophical views rather than as an instance of an intellectual-historical type, approaching his texts as a mere reconciliation between Aristotle and Descartes is misleading.⁹¹ For one thing, his thought contains aspects of not just Descartes and Aristotle but a host of other cultural and intellectual movements of the period. For another, it also deviates in crucial respects from each thinker. Clauberg rejects, for instance, the hylomorphist theory of substance central to Aristotle and also undermines the foundational status of Descartes' *cogito*. By focusing on how well his thought approximates that of other authors we risk losing sight of Clauberg's distinct philosophical ends.

More importantly, the 'Cartesio-Scholastic' label suggests the kind of lack of originality and systematicity connoted by the much-abused term 'eclectic'. The latter is sometimes applied not just to Clauberg but also to the larger context of philosophy in seventeenth- and eighteenth-century German universities.⁹² Designating an author 'eclectic' typically implies their interest in

⁹¹ Massimiliano Savini, *Johannes Clauberg: Methodus cartesiana et ontologie* (Paris, 2011), 9–10, notes this feature of Clauberg scholarship and advocates with his work a different approach.

⁹² École, 'La place', 69; Helmut Holzhey, 'Philosophie als Eklektik', *Studia Leibnitiana* 15 (1983), 19–29; Ulrich Johannes Schneider, 'Eclecticism Rediscovered', *Journal of the History of Ideas* 59 (1998), 173–182.

summarizing the views of past thinkers, a polemical position of non-sectarianism, or an intellectual attitude of non-dogmatism. Each of these are modes of being fragmented or derivative. A thorough examination of the label ‘eclectic’, whether as an actors’ category or as an analytic one, would take us too far afield. What I hope to have communicated in this essay is that Clauberg’s uses of Descartes and Aristotle defy treating his thought as eclectic in these senses. He embraces neither figure simply for polemical ends or for the sake of signaling an intellectual attitude. He was neither a mere apologist for institutional tradition nor an uncritical importer of exotic views. Rather, he had systematic motivations of providing a new conception of nature as divided into radically distinct mental and physical domains with unified, objective foundations which are neither ideal nor material but cognitively prior to both. Clauberg initiates a project in German universities of the late-seventeenth and early-eighteenth centuries of constructing a common ontological framework, Aristotelian in origins, for the new philosophy of nature. This project is both distinctive in the history of early modern philosophy and self-consciously systematic. We should view its exponents, from Clauberg to Wolff, as representing an original current of modern thought rather than as holdovers from an earlier time, or as epigones of a few inspired minds such as Descartes or Leibniz (or Aristotle). Such an approach would reveal the still-understudied context of early modern German university philosophy as not simply a repository of medieval orthodoxy but rather as a site of innovative responses to emerging problems of European modernity.⁹³

⁹³ I would like to thank audiences at the Oxford Seminar in Early Modern Philosophy at Mansfield College, March 13–14, and at the conference, ‘Teaching the New Science: The Role of Academia in the Scientific Revolution’, at the University of Groningen, June 15–17, 2017. For helpful questions and comments, I especially wish to thank Paul Lodge, Julia Borchert, Eric Schliesser, Julie Klein, Lisa Shapiro, Roger Ariew, Helen Hattab, Stefan Heßbrüggen-Walter, Andrea Sangiacomo, Tad Schmaltz, Gary Hatfield, Karen Detlefsen, Devin Curry, and an anonymous referee for *History of Universities*.