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*Civility, Comportment, and the Anatomy Theater: Girolamo Fabrici and His Medical Students in Renaissance Padua**

by CYNTHIA KLESTINEC

Public anatomies have been characterized as carnivalesque events: like the Carnival, they took place in January and February and celebrated bodily existence. However, in late sixteenth-century Padua and in its famous anatomy theater, the annual, public anatomy was a formal, ceremonial event. Girolamo Fabrici, the leading anatomist, gave a philosophical presentation of his research, a presentation organized by topic rather than by the gradual dissection of corpses. For medical students, the annual anatomy and the theater itself encouraged silence, obedience, and docility, reinforcing the virtues of civility that permeated the late humanist environment of Renaissance Padua.

1. INTRODUCTION

Between January and April 1590, a transalpine student in Padua wrote to the *Riformatori dello studio*, a group of two to four magistrates appointed by the Venetian Senate to oversee the activities of the university. In his letter, he requests more opportunities to study anatomy.¹ The annual, public anatomy demonstration, he explains, was a “most civil” event; it raised the “honor and fame” not only of his transalpine nation but of the entire university.² He then draws attention to private dissection as a necessary exercise in the study of “particulars.”³ While he goes on to lament

^{*}This essay is an extension of a paper presented at the USC-Huntington symposium on early modern anatomies, November 2006. In addition to the anonymous reviewers, I wish to thank the symposium participants, Mary Fissell, Anita Guerrini, Deborah Harkness, and Katharine Park. The research for this study was funded by the Gladys Kriebel Delmas Foundation, the Huntington Library, and the National Endowment for the Humanities. All translations are my own except where noted.

¹Epistolario della nazione artisti, 1565–1647, n. 476–77: Epistolari tedeschi, Archivio Antico Università di Padova (AAUP), January–April 1590, 82–83.

²Ibid.: “la publica Anatomia con nostro grandiss. civile et non senza singular honor, fama, et augmentatione de tutto vostro illustriss. Studio.” As they had earlier and elsewhere, students matriculated into specific nations at the university. These nations were geographically designated and in Padua included cisalpine and transalpine areas. On the student nations in Bologna and Padua, see Kibre, 3–64, 116–22; on foreign students in Padua, see Fedalto, 271–78.

³Epistolario della nazione artisti, 1565–1647, n. 476–77, Epistolari tedeschi, AAUP: Anonymous, January–April 1590, 82–83: “che sempre hanno havuto commodam di essercitarsi li anni passati e molte private et particolari Anatomie.”

that the public event was frequently postponed and the private exercises were too infrequently conducted, he characterizes the public anatomy demonstration in terms of civility, honor, and fame. This descriptive triad hints at the formality that would come to define the Paduan tradition of public anatomy and to distinguish it from its European and early modern counterparts.

Influenced by the work of Mikhail Bakhtin, current scholarship has emphasized the relationship between public anatomies and carnivalesque celebrations of corporeality.⁴ Public anatomies, the story goes, were sites of disruption, raucous outburst, and bawdy display. These events revealed potentially subversive reactions to the death and violence that dissection would seem to demand. This account, now suspiciously universal, derives from the particular case of Bologna and the anatomical practices and procedures at its university. In her classic study, Giovanna Ferrari notes that in Bologna by the 1640s, the annual anatomy demonstration and the Carnival overlapped: both occurred in the winter months; more importantly, spectators came to the anatomy theater wearing carnival masks.⁵ This conflation, Ferrari goes on to explain, was intentional: the administration was aware that fewer foreign students were coming to the university — matriculation levels were in decline, severely by 1640 — and to advertise both the new anatomy theater (ca. 1638) and the institutional innovation it heralded, the administration promoted the association between the annual public anatomy and the Carnival.⁶

In Padua, however, the tradition of public anatomy evolved under a different set of circumstances. The number of foreign students did not begin to decline rapidly until the first decades of the seventeenth century, long after the anatomy theater was built and in regular use.⁷ Stable matriculation patterns and the holding of the annual anatomy demonstration in the winter months before the Carnival began meant that professors, administrators, and students attached a different set of ideas to the anatomy theater: these were organized around the importance of natural philosophy

⁴Following Foucault, 3–72; Sawday, 54–84, provides an account of anatomy in relation to penal codes and infamy; Ferrari, 50–106, offers a richly historical reading of Bologna's anatomy theater in relation to the Carnival. Most recently, Lazzerini provides an account of Pisan practices that includes the anatomy demonstration as well as the ritual of burial. On Carnival, see Bakhtin, 4–41.

⁵Ferrari, 52.

⁶*Ibid.*, 74–82.

⁷The danger of the Counter-Reformation to foreign students developed more slowly in Padua than in Bologna. For this reason, Padua continued to attract foreign students: Kagan; Saibante, Vivarini, and Voghera.

and the civic recognition that the study of anatomy received. In Padua, the annual anatomy demonstration was not explicitly — or implicitly — linked to the annual events of the Carnival or to its ritualized celebration of the body. In the words of the student quoted above, it was a “most civil” event.

The Paduan tradition of anatomy was shaped by a number of factors: the clear distinction between public demonstrations and private dissections, as well as steady matriculation, institutional support, the research agenda, and the established reputation of the leading anatomist, Girolamo Fabrici (Hieronymus Fabricius of Aquapendente, 1533–1619) and the construction of the permanent anatomy theater (1594–95). Each factor played a vital role in the evolution of the public anatomy demonstration and its intellectual and cultural import. This essay focuses on the research and pedagogical habits of Fabrici, and on the behavior required of medical students at the anatomy demonstration and, eventually, inside the anatomy theater. It shows first that the natural-philosophical impulses of Fabrici connected the study of anatomy to the wider pedagogical and humanist culture of the university; and, secondly, that the anatomy theater helped to endorse the codes of civility that permeated the late humanist environment of Renaissance Padua.

Fabrici understood anatomy as a domain of research, different from the practice and refinement of surgical techniques. His research developed the Aristotelian topics of motion, sensation, digestion, respiration, and generation. For example, inside the anatomy theater, he would isolate the organs of the senses and in the course of his demonstration, treat only them. Molding the annual public demonstration around his research, he used the public forum to explore the connections between anatomy and natural philosophy.⁸

Under Fabrici’s guidance, the anatomy demonstration focused on the philosophical dimensions of anatomy rather than solely on the physical features and dissection of the corpse. Fabrici did not organize the demonstration around the gradual process of dissection, the opening of multiple cadavers and animals. Instead, he considered the initial question — How are structures shaped? — in order to explore the more important question: Why are structures shaped as they are? If the first question could be answered relatively quickly and descriptively, the second question took longer to answer, for it required a teleological understanding of nature and a sophisticated system of causal explanation that incorporated aspects of

⁸Carlino, 3–4, distinguishes between public and private dissections in terms of ceremonial and didactic ones. This essay argues that the ceremonial features of the public anatomy were also didactic.

material composition, function, form, and purpose. It was this second question which occupied Aristotle, excited Fabrici, and became the subject matter of the public anatomy demonstration.

The anatomy theater became a place for Fabrici to develop and to publicize his innovative research on the philosophical causes (rather than physical structures) of anatomy. For his students as well, the demonstration was defined not by manual activity but rather by philosophical weight — that is, not by a physicality that might bleed into the Carnival season but rather by conceptual rigor. This distinction, however, led students to reconsider the anatomy demonstration as an integral part of their wider university education. They associated it with natural philosophy. As we shall see, once it took place in the specialized theater, students began to see the public demonstration as a civic event. They called attention to their presence in the theater in attempts to augment their reputation at the university and in the wider context of the Venetian Republic. Inside the anatomy theater, medical students became keenly aware of their behavior and of the newfound virtue of silence.⁹

Tracing the late sixteenth-century history of anatomy from the perspective of the students enables us to characterize the growing significance of the anatomy demonstration and the anatomy theater. While the anatomy theater helped to solidify the boundary between anatomy and surgery, it also became a place where knowledge was created and presented rather than disputed, where hearing the presentation was as important, if not more important, than seeing the dissected specimens. The theater allowed the study of anatomy, now more clearly weighted toward the philosophical, to intersect boldly with other features of the university and of the students' education. It displayed civic importance, and it reinforced the virtues of silence and docility that were then emerging in the late humanist environment of the university. In 1590, when the student remarked on the great civility of the anatomy demonstration, he implicitly recognized the civilizing role that the anatomy theater would come to play.

2. UNIVERSITY ANATOMY

Throughout the sixteenth century, the academic study of anatomy took place in both public and private venues. The public anatomy demonstration was offered once a year, private dissections more frequently during the

⁹In 1590, in a letter to the Riformatori dello studio, Vittorio Merullio da Saxoferrato, the Vice-Rector of the *Artisti* students, acknowledged that alternative lessons or private anatomies were “more useful” than the public demonstrations. The letter is transcribed in Sterzi, 19:74–75.

academic year. Before 1595, when the anatomy theater was in use, public and private dissections included disputation: students tended to dispute points more frequently in private, professors in public.¹⁰ But there were many kinds of exchange between the public and the private. In the early sixteenth century, public demonstrations of anatomy were given as introductions to inexperienced students. For example, Berengario da Carpi (ca. 1460–1530) called the public demonstration a common anatomy, signaling its introductory function; in contrast, he preferred the private demonstration because he liked to emphasize the importance of sight and touch and to develop a specialized understanding of human anatomy from human corpses, animal remains, and vivisectioned animals.¹¹ Although Andreas Vesalius (1514–64) argued in the 1540s that the public demonstration should include hands-on practice, participation, and disputation, it was the private dissection that eventually developed into a venue for these features and the pursuit of research and specialized knowledge.¹²

As one might expect, private dissections gave professors a chance to pursue anatomical particulars as well as anomalies. These were subjects for research. Private dissections also afforded students an education not only in particulars but also in the manual techniques of dissection. In university halls, hospital rooms, and pharmacies, students would learn to dissect human and animal corpses in various stages of decay, and studying musculature and bones, to identify and set fractures.¹³ In similar venues, lessons on general surgery were offered and, though less frequent, they too reinforced the practical nature of anatomical knowledge. Students appreciated these lessons as much for their practical orientation as for the chance to participate in them by dissecting specimens and holding, touching, and asking questions about the dissected parts.¹⁴ A letter from April 1590 praised the student Johannes Conradus Zinn for his handiwork and for his ability to “talk familiarly about surgical operations.”¹⁵ Another letter from June 1597 praised Johannes Richter for pursuing practical medicine,

¹⁰For an example of a formal disputation during an anatomy demonstration, see Falloppio, 86^v–87^r.

¹¹French, 96–98.

¹²See Vesalius, 1543, dedication to Charles V. Even earlier, Vesalius made this point in his demonstrations in Bologna. See Heseler, 290–93.

¹³Carlino, 188–94.

¹⁴Klestinec, 394–99.

¹⁵Epistolario della nazione artisti, 1565–1647, n. 476–77, Epistolari tedeschi, AAUP: Anonymous, letter on Johann Conradus Zinn (Lectori Salutem), April 1590, 119^r–120^v: “publicis ac privatis administrationibus anatomicis; herbarior disquisitionibus gravis; operationibus chirurgicis . . . familiariter conversabatur; et quem is manumopere diligebatur.”

debating the arts of medicine, and “devoting himself to the laborious work of the administrations of anatomy and surgery.”¹⁶ Richter’s handiwork, moreover, “caused the eyes of all to turn on him” and earned him the support of the transalpine nation “one by one and as a whole.”¹⁷ Especially for students, the key to anatomical knowledge was located in the manual and practical activities associated with private dissection and surgical training.

While the practical dimensions of anatomy remained popular with some students, a debate between the practical and natural-philosophical orientation of anatomical knowledge emerged.¹⁸ This debate is best exemplified in the rivalry between Giulio Casseri (Iulius Casserius, 1561–1619) and Fabrici. As early as 1583 the academic roster distinguished lessons on anatomy from those on surgery and made Fabrici responsible for both; in practice, however, Casseri taught the extraordinary — that is, less eminent — lessons in surgery.¹⁹ Holding a post at the hospital of San Francesco, Casseri came to the study of anatomy with practical concerns and practical expertise.²⁰ It was Fabrici, Casseri’s former teacher and later

¹⁶Epistolario della nazione artisti, 1565–1647, n. 476–77, Epistolari tedeschi, AAUP: Anonymous, letter Johannes Richter Oppaviensis, June 1597, 141’–142’: “Is enim Scholar Excellentium Virorum frequentando, praxim medicam sectando, quaeque vel intellectu vel visu dignior occurrerunt diligenter persequendo, de gravioribus artis medicae controversiis saepe cum aliis dissertando, demum anatomicis et chirurgias administrationibus operam indefessam navando, tantum ingenii atque eruditionis famam acquisivit ut omnium oculos animosque mi se converteret et singulare nationis Germanicae ornamentum a plurimis haberetur.” As Bylebyl, 350–51, notes, clinicians, surgeons, and anatomists could be one and the same, and medical students, especially foreign students, sought practical training in clinical diagnosis as well as surgery.

¹⁷Epistolario della nazione artisti, 1565–1647, n. 476–77, Epistolari tedeschi, AAUP: Anonymous, letter Johannes Richter Oppaviensis, June 1597, 141’–142’.

¹⁸French, 232–38, distinguishes between philosophical and medical (sometimes mechanical) anatomy. William Harvey, following Fabrici, pursued the former, while Parisian anatomists such as Jean Riolan pursued the latter.

¹⁹On 5 February 1583, Fabrici was given a salary of 400 fiorini for the annual demonstration and an additional 200 for general lessons in surgery. From the 1580s to the first decade of the sixteenth century, Casseri offered lessons on surgery, which further fueled the rivalry between the two: see Sterzi. As with private dissections, lessons on surgery were frequently noted for their attention to cutting and to the techniques of dissection: see *Raccolta Minato*, n. 56, AAUP.

²⁰Students often criticized the annual anatomy demonstrations for failing to include lessons on dissection per se, and on surgery and a general (rather than comprehensive) treatment of human anatomy. The *Acta nationis germanicae* include multiple references to medical students’ dissatisfaction with Fabrici and their satisfaction with Casseri as well as minor anatomists such as Paolo Galeotto (Paulus Galeotus). For Fabrici’s tumultuous relationship with his students, see Favaro, 120–25; on Casseri, see Sterzi; for the students’ responses to Fabrici, Casseri, and Galeotto, see Klestinec, 375–412.

rival, who taught the ordinary — that is, more eminent — lessons in anatomy. Well-established and highly regarded at the university, Fabrici took a special interest in the philosophical dimensions of anatomy, using the venue of the anatomy demonstration as a vehicle for his research. The ensuing rivalry between these two anatomists encouraged Fabrici to sharpen the differences between surgery and research-oriented anatomy and to maintain control over the annual, public anatomy demonstration.

Using the public forum of the demonstration to present his research, Fabrici redefined the uses of public and private anatomical exercises. Rather than conduct and discuss his research in private, by the 1590s Fabrici had begun to pursue his research in the more public anatomy demonstration. His research, as Andrew Cunningham has explained, depended on Aristotle's studies of nature and animals: that is, on Aristotelian methods and topics.²¹ Fabrici extended the study of anatomy from the scrutiny of human, structural anatomy to a survey of structures present, present in altered form, or absent in a range of animals.²² Finding these differences, he would explain them as essential or as environmentally conditioned. From essential differences between animals, he would formulate the incidence of a part, the way it occurred in a range of animals, with respect to the whole animal. For Fabrici, the whole animal was a composite formed from his many inquiries. His method isolated structures, identified their functions, and explored their uses and usefulness. In his work on vision, *De visione*, he explains this method and its textual origins.²³ Drawing on Aristotle's *On the Soul* and *On Generation* and on Galen's *On the Natural Faculties*, he defines action as the function of the part for itself and for the organism; drawing on Galen's *On the Uses of the Parts* and on Aristotle's *Parts of Animals*, he defines use as the explanation of why a part exists as it does in the animals surveyed, including humans. As this suggests, Fabrici's explanations were increasingly general and related to ideas of the organic soul.

The organic soul was the principle responsible for the life functions of the body, the vital operations of digestion, respiration, and reproduction, as well as sensation.²⁴ With this understanding of soul, Fabrici organized his research topics to follow Aristotle's course of study. Where Aristotle studied the rational soul, Fabrici produced an account of speech; where Aristotle studied the motile soul, Fabrici produced a work on locomotion;

²¹Cunningham, 1985; Cunningham, 1997, 167–90.

²²Cunningham, 1997, 172–80.

²³Fabrici, 1738, dedication to *De visione* (originally published in 1600).

²⁴Park, 1988, 464–73.

where Aristotle developed his ideas on the sensitive soul, Fabrici wrote on vision and hearing; and from Aristotle's studies of the vegetative soul, Fabrici published on digestion, respiration, and generation.²⁵ The topical nature of Fabrici's inquiry was also reflected in the topical organization of his demonstrations. In contrast to Berengario da Carpi, who called the annual demonstration *common* because it was meant to be a general introduction to anatomy, Fabrici called his annual demonstrations *exact*: they were topical rather than comprehensive; they were limited to the organs and structures associated with a specific topic.²⁶

Fabrici was not troubled by the issue of comprehensiveness — the need to provide a general introduction to anatomy — or the need to let students see and touch the anatomical parts and practice the techniques of dissection. These were all features of the private dissection and the surgery lesson: they were associated with Casseri's teaching. In November 1597, the academic roster clarified this set of distinctions, assigning Fabrici the more eminent chair in anatomy and surgery but noting that anatomy was superior to surgery by virtue of its philosophical basis.²⁷

Fabrici's philosophical approach to anatomy was firmly grounded in its Paduan environment, where Jacopo Zabarella (1533–89) and Cesare Cremonini (1550–1631), among others, intensified the study of Aristotle's works. From the perspective of the institution and the hierarchy of disciplines, Fabrici's program elevated the study of anatomy to a philosophical inquiry. It allowed Fabrici to respond to the idea that anatomy was only a tool for collecting particulars. Giving voice to this critique, Cremonini

²⁵Ibid.

²⁶In October 1595, Fabrici promised to give a complete demonstration, "an explication of the parts, actions, and uses," where *actions* and *uses* point directly to his interest in Aristotelian natural philosophy: see *Acta nationis germanica* (hereafter cited as *Acta*, followed by the year), 1595–96: "Octobris 29 vocata Universitas in aulam Capitanei ob Rotuli, ut vocant, lectionum praesentis anni publicationem; quod vero Rectores multis essent districti negotiis, nihil actum. Incepere tunc ad Ixbris diem tertium lectiones maximo scholarium applausu et concursu, in Doctoribus nil nisi summa reperiebatur diligentia, praesertim Exc. Aquapendente, qui a sectione statim exordium sumens, huic ac partium actionum et utilitatum explicationi exactissime tota hyeme operam se daturum non semel pollicebatur."

²⁷*Acta*, 1597: "Volo hic Excellentissimum Aquapendentem, non tam perstringere quam excusare, siquidem caussam quod bis in Rotulo positus cernitur aliquis poscere possit: cupiebat is simpliciter (ad exemplum, ut aiunt, Fallopii) Philosophis etiam primariis praeponi; verum aegre ferentibus iis, ipsos quod Chirurgus antecedere deberet, Syndicus ei proximum ab illis locum assignare statuebat, quo tamen non contentus senex, maiorem Syndico curam iniicit, qui ut omnibus gratificaretur, tandem simultatem istam sic dirimit, ut Fabricium celeberrimum ut Anatomicum scilicet superiorem, uti Chirurghum vero inferiorem Philosophiae antesignanis fecerit."

wrote: "It is for the fool to collect trivia, not for the philosophical genius."²⁸ Whereas previous anatomists — such as Vesalius, Realdo Columbo (1516–59), and Gabriele Falloppio (1523–63) — sought to isolate new structures, Fabrici sought to extend a set of normative structures associated with a topic by providing a philosophically substantial account of them in relation to the whole animal. While the Renaissance university privileged abstract, conceptual knowledge over its manual or technical counterpart, equally important was the legitimacy it lent to natural philosophical endeavors, a legitimacy that often translated into tangible support for professors who pursued these endeavors. It is a mark of Fabrici's success that in 1594–95 the university built a special anatomy theater that had Fabrici's name engraved above the entrance.

For Fabrici, novelty resided in the conceptual framework he brought from Aristotle to the study of anatomy. Both initiates and experienced students were meant to focus on hearing the demonstration of his research rather than seeing the anatomical particulars. As Cremonini said to the students on 27 January 1591, it was not enough to parrot the mottos *Know thyself* and *Man is a microcosm*.²⁹ Students had to reveal their knowledge of the deeper structures of philosophical thought made manifest by such dicta. Fabrici's philosophical program and the anatomy theater, as it turns out, could assist that enterprise.

3. THE ANATOMY THEATER

The didactic agendas of Casseri and Fabrici reveal several aspects of the specialized field of anatomical inquiry in the late sixteenth century. Where Casseri's private dissections and lessons on surgery made tactile and visual modes of apprehension central to the students' education in practical anatomy, Fabrici's demonstrations tended to emphasize the auditory apprehension of philosophical anatomy. Inside the anatomy theater, students listened to his causal explanations and contemplated what the seventeenth-century chronicler, Jacopo Filippo Tomasini (1595–1655) called "the mysteries of nature."³⁰ The permanent anatomy theater enhanced Fabrici's philosophical program by separating the preparatory dissection from the demonstration; coincident with this separation, the theater encouraged good, orderly behavior as well as silence from the medical students.

In the far right chamber of Palazzo del Bò, the anatomy theater was

²⁸Bylebyl, 363, n. 128; Cremonini, 1627, 50, begins his critique.

²⁹Cremonini, 1948, 13–43.

³⁰Tomasini, 78: "naturae arcana."

built out of wood: with an elegant, oval shape, it has a streamlined effect, which has been described as similar to the celebrated Venetian tradition of naval carpentry.³¹ Stairs encircled the shell structure and served the elliptical theater with various means of access, and there were eight windows, which existed previously in the chamber.³² Architecturally, the theater's design would have made it difficult for students, standing beyond the first two rows, to see the minutiae of anatomy, the often delicate and partially decomposed structures associated with movement, sense, digestion, respiration, and reproduction.

But this was less of a problem than it might initially seem. As the earliest chronicles record, the anatomy theater included not only the arena but also a separate chamber in which the specimens were prepared.³³ On 3 December 1597, we learn that it was the students who would dissect the specimens: "passionate to begin, they took in their hands the umbilical vessels, skinned with great difficulty, and having looked at the parts of the abdomen there, they removed them with few exceptions"; their activities were "continuously restrained" by "modesty" (*pudor*) and a fear of Fabrici's dismissal.³⁴ While modesty informed and even determined the students' manual manipulation of the corpse, the passage emphasizes the spatial division of the two chambers and the temporal division of practices; the architectural design of the theater served to separate the students' dissection from Fabrici's demonstration.³⁵ In utter contrast to Vesalius's polemical insistence that the anatomist dissect the specimens with his own hands, Fabrici let his students prepare the specimens. This practice, moreover,

³¹The architect of the theater remains unknown. Scholars have suggested Fabrici as well as Fabrici's friend, Dario Varotari, who in addition to being a painter was also the architect of Fabrici's villa. In addition, this anatomy theater was the second of its kind. On both issues, see Piaz, 63–69; Rippa Bonati; Cagnoni.

³²Gamba notes that in the earlier tradition, these windows were intended to stay closed and, therefore, fourteen candles were brought in to ensure proper illumination.

³³Abriano, 135^v, states that the theater was in existence in 1594. For the two chambers of the theater, see Malfatti, 54; Tomasini, 78–80.

³⁴*Acta*, 1597: "quamvis enim initio fervidissimi appareant, subito tamen denudato vix umbilico conspectisque abdominis saltem partibus, illico frigescere et subtrahere se incipiunt, paucissimis exceptis, quos pudor et amittendi apud Doctorem metus favoris invitos ad coronidem usque retinet."

³⁵Sterzi, 18:235–37, notes this passage as well. See *Acta*, 1597: "Nec solum Anatomistam, seu Massarium vulgo, ex Senioribus nostris quotannis habere cura sit, uti quem cum socio in procuranda cadaverum seu subiectorum copia, intromittendisque in Theatrum personis certis occupari novimus; quin immo si fieri potest, etiam collaborator seu Praeparator ex nobis quaerendus, quo celerius Senex progredi possit, nec habeat quod tarditatis excusandae loco umquam praetendere valeat."

became standard. In 1599 the student assistants, who were chosen to organize the annual demonstration, were renamed *anatomists* and referred to as *preparers*.³⁶

How could the anatomist leave the work of dissection to the students? The short answer is that the annual demonstration did not depend on the discovery and isolation of anatomical structures. That is, it just didn't matter. The long answer involves natural philosophy, the role of experience and sense perception, and Fabrici's own inclinations. While Fabrici's demonstrations depended on the kind of structural specificity that dissection would grant, they pursued normative structures, the regular features of anatomy that were present or absent in the specimens. Here Fabrici was following Aristotle. As Lorraine Daston has explained, Aristotle's study of nature began with experience and sense perception, but the experience was of a common rather than of a rare or particular sort.³⁷ While the study of common phenomena, or nature as it regularly appears, would eventually give way to the study of particular, highly circumstantial phenomena, the Paduan tradition of anatomy, as embodied by Fabrici and as practiced in the late sixteenth century, was dedicated to normative anatomy.³⁸ For Fabrici, one had to perceive by sight, touch, and verbal description the normative structures of anatomy. The extraordinary and the monstrous lay beyond the bounds of Fabrici's program and beyond the Aristotelian coordinates of explanation. Dedicated to such regularity, Fabrici wrote: "even if certain extraordinary animals form exceptions, they do not invalidate the truth of my statements."³⁹

The emphasis on normative anatomy is evident from the beginning of the demonstrations.⁴⁰ The initial phase of the demonstration, which was called the *historia* or *observationes*, was devoted to the identification and

³⁶See Sterzi, 18:235–36, who also explains that in the previous year the transalpine students had thought it necessary to elect a *consigliere anatomico*, a kind of preparer, to help Fabrici with the manual labor of dissection.

³⁷Daston, 1994, 41.

³⁸Dear, 1987, has shown that by the 1650s the category of *experience* signified the rare and particular rather than the common.

³⁹Fabrici, 1942b, 142.

⁴⁰The number of structures was limited. To study the chick embryo, Fabrici, 1942b, 141–48, begins with basically seven structures, though the uterus signified three of them: the uterus, the egg, the vitellarium (group of yolks) or raceme (ovary, group of eggs), the pediolus (stalk to which yolks are attached), the peduncle (attaching yolk to the stalk), the infundibulum (the passage between the first and second uterus), and the podex (where the second uterus terminates). In *De foetu*, 1942a, 247–75, he limits the structures to nine.

description of these structures. Fabrici's *historia* and the rest of his demonstration, however, did not depend on the exactness or skill of his students' preparations. Regardless of whether students were able to isolate all the structures that Fabrici would subsequently discuss, Fabrici could continue the demonstration by treating the regular (perhaps common by 1595) structures that were relevant to his topic. These structures were part of the stock of experience that students and professors obtained in the other curricular activities designated for the study of anatomy: private dissections, lectures on anatomy, and the study of ancient and contemporary anatomy texts. Less interested in the discovery of new structures, Fabrici could leave the work of dissection to the students, a division of labor reflected in the architecture of the theater. This organization, moreover, would allow Fabrici to devote his energy in public to the conceptual principles that coordinated anatomical parts.

The emphasis on natural philosophy and the causal explanation of anatomy is perhaps one reason why Fabrici was so surprised when he made a structural discovery, as he did with the doors, or *ostioli*, of the veins. It is also why he describes that discovery as a "cause for wonder," as if to emphasize how productive the pursuit of causes could be.⁴¹ As for why earlier anatomists missed these membranous doors, he writes: "Either they neglected to investigate the function of the doors, a matter, one would think, of primary importance, or else they failed to see them in their actual demonstration of veins. For in the bare veins exposed to view, but still uninjured, the doors in a manner display themselves."⁴² It was not so much inattention or careless observation that confounded earlier anatomists: the doors were utterly visible, "displaying themselves." Rather, their mistake was a conceptual one. They neglected to investigate the function or action of the veins. Explaining his discovery in relation to the coordinated actions of respiration, Fabrici both responded to the structural obsessions of earlier anatomists such as Vesalius and Falloppio, and signaled the productive capacity of his conceptual program.

⁴¹Fabrici, 1993, 70: "Cogitanti mihi iam dudum, cui potissimum, tanquam benevolente fautori, hunc meum de Venarum Ostiolis tractatum dicarem, nullus succurrit, cui magis eum convenire existimarum, quam Inclyte Nationi Germanicae; ut quae inter ceteras hoc meum de iisdem Ostiolis inventum prima mecum observavit, mecum in sectione corporum iucunde contemplata sit, mecum admirata, vos is estis, qui preter ceteros Anatomen expetistis."

⁴²Ibid., 72: "Contra vero quispiam priores in re hac in simulaverit, quod usum ostiorum, qui apprimè videtur necessarius indagare neglexerint, quodue ipsa in venarum ostensione non animadverterint. Nam nudis venis, iisque integris ante oculos oblates ostiola se se quodammodo in conspectum exhibent."

While the Aristotelian framework of anatomical knowledge was not new at the end of the sixteenth century, the emphasis it received was. This emphasis was part of Fabrici's humanist project. For some time now, scholars have explored the ways that Renaissance anatomists followed humanist trends: Vesalius looked back to Galen, Fabrici to Aristotle.⁴³ Fabrici drew upon Aristotle's works, developing the categories of actions and uses to derive philosophical knowledge from anatomical particulars. This resulted from Fabrici's humanist inclinations and perhaps also from a pedagogical dilemma. How could Fabrici teach his students to understand, or at least to remember, the overwhelming kinds of structures that previous anatomists had discovered? In his study of motion, Fabrici writes: "if one inquires with simple dissection [like Galen and Vesalius], and in this way enumerates the sequences [of muscles] first, second and third, it results in more confusion than if one notes the utility of the muscles. And when we inquire into causes and into uses . . . we commit the exact number of muscles to memory."⁴⁴ The conceptual categories of Aristotelian natural philosophy suggested philosophical extension as well as pedagogical solution. Fabrici could simplify the wealth of anatomical detail with a stronger focus on the conceptual categories of actions and uses. And the permanent anatomy theater developed into the key site for the presentation of this method and the knowledge it produced. The theater helped to publicize Fabrici's research, broadcasting his innovative philosophical program.

4. REGULATION AND DISCIPLINE IN THE THEATER

Attached to the theater itself, Fabrici's philosophical program received a great deal of external support. In 1595 the anatomy theater was filled with

⁴³These scholars include Cunningham, 1985 and 1997, and French, whose work adjusts the progress-oriented reading of Vesalius found in earlier scholarship — for example, that by O'Malley and Persaud — as well as Carlino, who argues that medical humanism was derived from and further strengthened by anthropological concerns for the corpse.

⁴⁴Fabrici, 1618, 82: "Miraberis forsitan lector, quod musculos non describam, ut Vesalius in toto suo opere, et Galen in libro *de admin. anat.* fecit, qui ordinem, seu commodam dissectionem respicientes eos descripsere, quoniam ii tantummodo eorum dissectionem pro ut unus alteri succedit, et contiguus est associaturq[ue] nobis saltem ob oculos ponere et monstrare voluerunt. At nos, qui scopum habemus docere per ea, quae insunt musculis, eorum actiones et usus, merito alio ordine incedendum duximus, qui procul dubio nos ducit ad notitiam casuum musculorum et articulorum. Nam si quis simplicem dissectionem inquirat, et primum secundum tertium et sequentes hoc modo numeret, potius confusionem, quam notitiam utilitatem musculorum consequetur. At quando nos eorum, quae insunt musculis, causas inquirimus, tunc usum inquirimus, et musculorum numerum exactius memoriae mandamus."

students, professors, and administrators as well as fishmongers, shoemakers, and tailors.⁴⁵ The early success of the theater as well as a personal letter from Fabrici guided the Venetian Senate's decision to subsidize the event.⁴⁶ In 1596 the Senate accepted financial responsibility for the annual demonstration and the theater itself, allocating funds so that the anatomist could pay his student assistants and the costs of admission; entrance into the theater would remain free and if any money were left over, it would return to the state purse and be used for the maintenance of the theater.⁴⁷ The Senate's financial backing both ensured that the tradition of demonstrating anatomy would continue and valorized, in a more specific sense, the civic significance of anatomy. Rather than fold the annual demonstration into the Carnival season, the decree tied Fabrici's research, his annual demonstration, and the theater to the vitality of the institution. The Senate called the theater "honorable," and in the early seventeenth century Tomasini wrote that the annual demonstration was done for the "majesty and glory" of Venice.⁴⁸

In addition to giving financial support and civic recognition, the Senate's decree targeted the behavior of the students. It stated that because the annual event was "so necessary to the study of Medicine," the anatomy theater was constructed in a "place stable and most highly honored"; the demonstration "shall not be disrupted . . . as it is every year by the bad

⁴⁵*Acta*, 1595: "Confluxerat eo tota quasi civitas, et extremae etiam farinae homines tanquam ad forum cupidinis: subsellia occuparunt hebraei, sedentarii magistri, sartores, calceolarii, solearii, carnarii, salsamentarii et his inferiores baiuti et corbuli illi, adeo ut in dubium relinqueres plus ne collegii scholares anatomici sectioni ac dexteritati attenderent, an haintia huiusmodi homuncionum ora aspicerent."

⁴⁶*Ibid.*: "Ille autem laudum mentione facta subridens bonus senex, absolutissimam vobis, inquit, dabo; sed volo ut sit libera, omnes ut videant absolutissimam; et oportet ut Universitas Venetiis scribat ut ex pecuniis Studii sumtus habeat, et ego etiam intercedam meis literis; et concedo ut eligatis secundum statuta Massarios quibus singulis septimanis dabo florenos quatuor." On free admission, see also Riccoboni, xviii: "De ingressu in theatrum ad spectandam anatomem et honore anatomici"; *Raccolta Minato*, n. 655, AAUP.

⁴⁷This reversed a very old practice of requiring the students to pay for the demonstration. See Senato Terra Registro 66, Archivio di Stato di Venezia (12 September 1596): "Perche l'Anatomia tanto necessaria alla Medicina, et cognitione tanto degna d'ogni studioso fosse detta, et tagliata nel studio nostro di Padoa con quella dignità che si ricevea à cosifatto studio, et con quel frutto, che si deve aspettar da così importante lettura et materia che si può dir delle più principali delle arti et medicina si è fabricato in quelle scuole nostre il theatro per farla in esso stabile, et honoratissimo, resta nondimeno à farsi provisione, esse non sia disturbata, come . . . si è fatto ogn'anno con maleficio de'scolari."

⁴⁸Tomasini, 78: "Dignum profecto Veneta maiestate opus, quodque non minus gloriae suae parte ponat, quam antiquitas Circos suos ac Paleostras."

behavior of the students.”⁴⁹ Like the temporary and permanent theaters that came before it, this theater was intended to regulate the behavior of the students, to create order among them by limiting their disruptions. While historians and literary scholars have seen these references to disruption as evidence for the association between anatomy and the Carnival, the misbehavior of students has a long history in the life of the Renaissance university.⁵⁰ While disruption could be instigated by Carnival antics or intensified during the Carnival season, as a phenomenon, it was widespread and on the rise in the sixteenth century. Student violence escalated: students perpetrated crimes against each other, bringing one student nation into rivalrous conflict with another, and with their teachers. Given this environment, the administration’s decree likely referred to the bad behavior that was typical, or typically expected, of students. As a response to the widespread problem of misbehavior, the theater as well as the philosophical contours of the annual demonstration may have helped to defuse such conflict so that harmony among the students might prevail.

The transalpine students, in particular, seemed aware of the regulatory and cultural functions of the theater. In 1597, not only did they refer to the way modesty restrained their dissection of the specimens, but they also reflected on their importance at the university in terms of their presence in the anatomy theater. As one student put it, if the members of the transalpine nation did not show up, the theater would frequently remain empty.⁵¹ Given the large audience at the 1595 demonstration, this student likely overstates the case. But his remarks nevertheless suggest that students magnified the regulatory or disciplinary function of the theater: good behavior was necessary to develop their studies, to win their teacher’s approval, and to cement the reputation of their nation at the university.

The regulatory function of the theater also diminished the opportunity for disputation: the formal, always public, format of argument that developed out of the medieval *questiones* tradition. During a disputation, two or more disputants would argue for and against propositions in order to arrive

⁴⁹Senato Terra Registro 66, Archivio di Stato di Venezia (12 September 1596): “maleficio de’scolari.”

⁵⁰For sixteenth-century accounts of violent outbursts between student factions, see Rossi, 111–12, 130–36, 151–52, 209–10; Cremonini, 1948, 64, attacks Jesuit teaching and compares the student rivalries to the bloody history of the Guelphs and Ghibellines. On violence at the university, see Grendler, 500–05.

⁵¹*Acta*, 1597: “Certo si absque Ultramontanis esset, Theatrum saepe vacuum quin reperiretur, vel Excellentissimo Viro teste affirmare ausim.”

at the truth and convince the audience.⁵² While disputation continued to take place in many other places at the university, it waned inside the anatomy theater. Hearing and listening, rather than disputing, became central to the anatomy demonstration.

The emphasis on hearing derived as much from the experience of listening to Fabrici's demonstrations as from listening to the musicians who occasionally came to the theater. In 1597, eleven days into the demonstration, Fabrici brought lute players to the anatomy theater. The musicians played for many days: their music helped to transform the "sad look" of the students and, by halting the "tumults," to bring a new "tranquility" to the theater that persisted "for quite a long time."⁵³ Music heightened the auditory experience of the demonstration. Students called themselves listeners as well as spectators and the theater an auditorium as well as a place for seeing.⁵⁴

While the occasional reference to music has encouraged historians to locate the theatrical origins of the annual anatomy demonstration in the (often musical) rituals of Carnival, the music here was initially tied to a concern for burial. Introduced in 1597, the lute players were part of a broader reform that aimed to dispel, or at least to quell, the rumors that the cadaver's body was being repeatedly profaned by medical professors and students. The transalpine students listed the rumors: that they snatched bodies or plundered graves for their multiple cadavers; that, inside the anatomy theater, the bodies were torn to pieces and left unburied; and that they concealed their destruction and abomination, joining together like dogs to devour the corpses. The transalpine student concludes the list by

⁵²Grendler, 153, notes that the skills needed to be successful included the ability to draw distinctions from logical principles, to state views forcefully, to isolate the errors in opponents' statements, and to quote authoritative texts from memory.

⁵³*Acta*, 1597: "A.d. 12 Xbris ad exhilarandos anatomiae spectatores recreandosque ex tristi aspectu animos, ex vetusta consuetudine (quae tamen superioribus aliquot annis proximis interrupta) fidicines ab Anatomistis conducti et in Theatrum reducti fuere, procurante hanc rem sedulo D. Placotomo; aderantque musici isti etiam sequentibus diebus quamplurimis, sumtus certe qui illis irrogantur minime poenitendi, si quidem dum ipsi attendunt et auscultant spectatores, ab omni tumultu et calcitratione supersedere solent, cuius tranquillitatis gratia Theatrum anatomicum aliquot annos diutius inconcussum durare poterit." Also cited by Gamba, 160, n. 14.

⁵⁴For example, see *Acta*, 1600: "Excellentissimus Aquapendens absoluta prius absolutissima in public auditorio tam humanorum quam ceterorum animalium, ut et volucrum seu pennatorum ossium ostensione, posteaquam tria extarent corpora seu subiecta, duo virilia, muliebre unum, ad sectionem solemnem pompa cum fidicinibus ab Anatomisticis conductis accessit, eamque aliquot dierum spacio, frequenti semper auditorum corona admodum evidenter administravit."

claiming ignorance: “if these quarrels are not entirely empty, if they are not empty laments.”⁵⁵ Nevertheless, the students responded to the charges by promoting the idea of honest burial, by exhorting contributions from the spectators to pay for the cost of a funeral, and, on 16 December 1597, by attending a funeral in the church of St. Sophia.⁵⁶ In contrast to the carnivalesque celebration of the body, the music inside this anatomy theater helped to ameliorate the anxiety around burial that the study of anatomy presupposed: it served to make the theater tranquil, curbing the potential outbursts of the students and transforming sadness into pleasure. While the discussion about music is fascinating for what it reveals about popular fears regarding anatomical exercises, it also suggests that students understood the solemnity of the anatomy demonstration to prefigure the upcoming burial ceremony and not, for example, the upcoming celebrations of Carnival.

As an auditory experience, music may have developed the association between this theater and its other cultural counterparts. Contemporary theatrical traditions included the local and courtly playwrights who experimented in the vernacular with Greek and Roman drama as well as the writers who explored the recently discovered *Poetics* and aligned it with Aristotle’s *Rhetoric* as a tool for rhetorical education. In each of these traditions, hearing was a crucial step in the process of making knowledge. Equally important were the scholars who continued the long *ars memoria* tradition, creating theaters of memory to handle their dreams of encyclopedic knowledge.⁵⁷

In the early seventeenth century, local writers hinted at these associations. As if signaling the aesthetic coordinates of their pleasure, Tomasini

⁵⁵*Acta*, 1597: “In ea ipsa universitate, qua de referre coeperam, deliberatum quoque fuit numquid pro dissectis exequiae rursus solemnes uti antiquitus moris fuit instituendae, adque sumtus faciendos contributio a spectatoribus exigenda? Propositum istum omnium calculis adprobatum fuit, permoventibus nos iniquioris vulgi rumoribus, dum passim proclamaremur, complura cadavera raperemus inque Theatrum profananda comportarem, crudeliter postmodum dilaniata non sepeliremus, sed vel in profluentem demergeremus, vel quod abominandum, etiam canibus non raro devoranda committeremus; et nescio quae non vanarum querelarum et lamentationum vanissimarum aliae fuerint. Ergo latratuum istorum compescendorum caussa, tum etiam ut maiorem cadaverum copiam nancisci possemus, sententiam de sepeliendis honeste imposterum dissectis publice promulgare, et spectatores ad eleemosynas exhortari constituimus, non tamen nisi consulto prius Anatomico, qui simul ac nostram persentisceret voluntatem, sibi istud negotium relinqueremus, nec suae auctoritati derogarem satis morose monuit; sicque conatus istos qualitercunque pios omnino praevertit.”

⁵⁶*Acta*, 1597: “qui sub noctem in templo S. Sophiae sepeliendus erat, re sacerdotibus prius indicta, congregati in templum ad auferendum mortuum seu cadaver catervatim irruimus, sed admodum turpiter.”

⁵⁷On this tradition of theater, see Yates, 129–59; Findlen, 57–70; West, 43–50.

wrote that medical students were “most delighted” by the music in the anatomy.⁵⁸ In the 1640s, John Eveyln (1620–1706) went to the anatomy theater and noted that the anatomy demonstration was “celebrated with extraordinary apparatus.”⁵⁹ In his history of and guide to Padua (1623), Angelo Portenari (d. 1624) mentions the anatomy theater in his description of the court and classrooms in Palazzo del Bò, but lists it also among the modern theaters (in addition to the ancient arena) that existed in Padua.⁶⁰ These descriptions suggest that the anatomy theater became an ambivalent space, linked to didactic protocols for the demonstration of academic knowledge and, however casually, to aesthetic experiences that were both solemn and dramatic. For the student listening to the music and the philosophical demonstration inside the anatomy theater, this ambivalence helped to highlight the increasing formality of the event, a formality co-extensive with the protocols of ceremony rather than the procedures of disputation. Ushering in this transition, the anatomy theater began to shape the behavior and responses of its neophyte audience.

5. STUDENT COMPORTMENT MANUALS

Though evident in the anatomy theater, the tension between disputation and ceremony pervaded the social, pedagogical culture of the Renaissance university. To understand its wider significance, we can turn to the genre of the student comportment manual, which often staged the relationship between disputation and ceremony as incongruous. In its Renaissance incarnation, this genre provided students with shorthand accounts of each of the disciplines as well as instructions for how to organize their daily schedules, how to talk to professors, and how to act when attending university ceremonies. Beginning in 1586, the transalpine library in Padua acquired several vernacular works, including multiple copies of Stephano Guazzo’s (1530–93) *Civil Conversation* and Giovanni della Casa’s (1503–56) *Il Galateo*.⁶¹ These manuals provide idealized portraits of the well-behaved

⁵⁸Tomasini, 79.

⁵⁹Evelyn, 170.

⁶⁰Portenari, 96–97.

⁶¹From 1587 the records of the transalpine nation list the books that were donated to the library and, typically, the person donating them. The vernacular works included Italian-language dictionaries, works on the language debate, Cicero’s familiar letters, Boccaccio’s *Decameron*, ancient and contemporary comedies, and travel narratives. The *Acta*, beginning in 1586, lists the books donated to the transalpine library and frequently their donors. However, some years are missing from the list. See also Rossetti, on university libraries in Padua; Grendler, 505–06, for a summary of university libraries. For the long history of Italian conduct books, see Botteri, 43–100.

student and some of the essential rules for the earnest student pursuing his education on foreign soil.⁶²

Generally these manuals adhere to the psychology of youth described in Aristotle's *Rhetoric*. Aristotle writes that young men are impulsive, prone to aggressive behavior and to battle: "Youth long for superiority, seek it in victory; they are not cynical because they have not yet learned wickedness; they are trusting because they have not yet been deceived; they are filled with good hopes, because they have not experienced failure . . . they live for the most part in hope, for hope is of the future, memory is of what has gone before; for young men the future is long, the past short; for in the dawn of life nothing can be remembered, and everything [can be] hoped for."⁶³ Guazzo and Della Casa consider the psychological development of youth, the dangers of violence, and the ideal of honor; but they focus instead on the particular habits of the Renaissance student. They give advice that is culturally specific. Because Venetians, Della Casa says, are prone to lavish compliment, students should be ready to flatter them excessively. Such advice, however, was often counterproductive to the goals of humanist education, revealing the tension between the ideals of the humanist program and its practical exigencies.⁶⁴

Part of the humanist program depended on disputation. Assigning it a prominent role, Guazzo maintains that conversation was better than book learning because conversation addressed the "things about the world."⁶⁵ He launched his critique of book learning with medieval scholasticism in mind. Like other humanist pedagogues before and after him, he sought to provide an ethical foundation to education. Learning was supposed to

⁶²As Brugi, 19, 86–91, explains, transalpine students were notoriously earnest. In 1566, Pope Pius IV issued a bull stating that all university students had to profess their faith in order to receive their degrees, meaning that transalpine students, the English, and the Greeks (among others) had to profess the Catholic faith. Although the students sought protection from the *Riformatori* as well as the doge himself, they continued to be the objects of scrutiny; priests with the support of local professors held inquisitions and constrained the students to profess the Catholic faith and to live *cattolicamente*. The level of discipline enacted by these quasi-official persons along with the fear palpable in the transcriptions serve to demonstrate both the impact of the Counter-Reformation in the Veneto, traditionally known for its distance from Rome, as well as the transalpine students' concern for behavior at the university.

⁶³Aristotle, 1991, (*On Rhetoric*, II.12.165–66).

⁶⁴For a historiographical introduction to the history of education, see Black, 315–34. For the classic study of Italian education, see Garin; for the most recent response to this tradition, one that explores the gap between theory and practice, see Grafton and Jardine.

⁶⁵Guazzo, 11: "Conversazione insegna più che i libri."

include classical models and to shape a student's moral behavior in the world. But, as he says, "it would be an error to believe that doctrines can be acquired only from books rather than from conversation." Guazzo clarifies the point, adding first that "it is better to apprehend a doctrine through the ears than the eyes" and then that "one should not give in to being consumed by sight" but rather "receive from the ears the living voice, which imprints the mind with marvelous force." The soul, Guazzo maintains, becomes "languid" and "thin" when it fails to practice the arts of disputation.⁶⁶

Offered as a counter to medieval, scholastic rehearsals of logic, humanist disputation was meant to reveal, among other things, rhetorical sophistication. As both a logical and a rhetorical exercise, it was an important, formative part of a Renaissance student's education in law and in medicine. It continued to structure classroom experience, occasionally including the student's experience with private dissection; the students practiced the techniques of dissection, asked questions, and actively participated in their education. Disputation, however, waned in the public forum of the annual anatomy demonstration, where ceremony took precedence. In Della Casa's *Galateo*, disputation and ceremony stand directly opposed. On the formal nature of ceremonies, Della Casa suggests that students should be attentive to the status of their interlocutor, reflecting that status in the formal nature of their speech and in the number of compliments they offered.⁶⁷ While Della Casa warns that being preoccupied with formality would limit a student's ability to learn "weightier matters," he reiterates the importance of following formal protocol even in intellectual settings such as disputation. A student should not be too contrary or too aggressive in a dispute because "It is proper to let everyone have his say and, whether the opponent is right or wrong, to abide by the opinion of the majority or of the more importunate and leave the field of battle to them, so that others and not you will be the ones to do battle, work hard, and sweat. These are unseemly occupations not suited to well-behaved men."⁶⁸ While Aristotle understood that young men were

⁶⁶Ibid.: "Et voglio dirvi di più, che sarebbe errore il credere, che la dottrina s'acquisti più nella solitudine fra i libri, che nella conversatione fra gli huomini dotti . . . che meglio s'apprende la dottrina per l'orrecchie, che per gli occhi, e che non accaderebbe consumarsi la vista . . . e ricever per l'orecchie quella viva voce, laquale con mirabil forza s'imprime nella mente . . . Io dopo vengo considerando, che l'animo del solitario diviene o languido, e pigro, non havendo chi lo stuzzichi col ricercar la sua dottrina, e col disputare."

⁶⁷Della Casa, 58–59.

⁶⁸Ibid., 63.

prone to aggressive behavior because victory was more important than honor — victory signaled superiority — Della Casa cautions against verbal as well as physical aggression.

If Della Casa suggests that disputation disappeared in the face of formality, other writers elaborate the ideal of the silent student. In Bartolomeo Meduna's dialogue, *Lo scolare* (1588), one interlocutor describes the essential features of the ideal student in terms of subjection: "The subjection of the student has three components: attention, docility, and benevolence, [he should] be attentive with exercises, docile with his intelligence, and benevolent with his soul, attentive to what is heard, docile to what is meant, and benevolent to what is retained . . . [the student, when listening to his teacher] should not wander in his thoughts . . . [but rather] close his mouth and listen with wonder."⁶⁹ What Della Casa implies, Meduna makes explicit. Silence, acquiescence, and docility were key features of the well-behaved student. These features were at odds with the aggressive verbal displays associated with disputation. Such paradoxes were to be overlooked, however, because these features would enable the student to be efficient and successful in the world of university education.

These features take on greater importance in the context of humanism. Anthony Grafton and Lisa Jardine argue that rhetorical education was reduced to a system with clear methods, procedures, and classroom aids when it went from being "the practice of an exemplary individual" to "an institutionalized curriculum subject." The institutional character of humanism created a model of true culture, something to be mastered and not questioned; initiation into this system of education fostered an attitude of docile, unquestioning respect for authority.⁷⁰ In this sense, the submissive and acquiescent student was a byproduct of the increasingly institutional nature of humanism.

⁶⁹Meduna, 85–86: "Adunque il nostro scolare senza far molto alcuno con tutta la mente, e con tutto l'animo non fabricando castelli in aria, ne vagando co'l pensiero udirà il lettore attentamente pendendo tutta via dalla sua bocca, ed oltre l'ascoltarlo con maraviglia, e volentieri presterà intera fede a cio che egli dice, e lo conserverà nell'arca della memoria, e se per sorte non havrà bene intesa la lettione, potrà con bella occasione ricercarlo, overo per non molestarlo à tutte l'ore essendo pupillo dimandarà l'intelligenza delle questioni, e l'importanza delle ragioni ai provetti: La soggettione dello scolare si deve particolarmente ritrovare in tre cose . . . nell'attenzione, nella docilità, e nella benivolenza; attento con l'essercitio, docile con l'ingegno, e benivolo con l'animo, attento all'udire, docile all'intendere, e benivolo al ritenere."

⁷⁰Grafton and Jardine, 124–25.

With his humanist inclinations, Fabrici sought to provide clear methods and procedures for the philosophical study of anatomy. Indeed, his work suggests that he sought to place the study of anatomy more fully in the theoretical rather than practical branch of medicine. Exploring the natural-philosophical dimensions of anatomy, Fabrici's public demonstrations were endowed with a new formality that may have similarly conditioned students, encouraging their silent and docile behavior. By the end of the sixteenth century and by the time anatomy demonstrations were held in the permanent theater, the students did not dispute points with professors, nor do they seem to have asked questions. They participated at the beginning of a demonstration, preparing the specimens. In the public theater, students listened to Fabrici's presentation of philosophical anatomy. They became silent listeners, passive spectators, except when they caused disruptions. And, as the transalpine student explains, music helped to curtail or perhaps eliminate such disruptions, creating a tranquil atmosphere that persisted inside the theater.

The silent student, however, can strike several postures: that of a brooding rebel, that of a virtual sleeper, or that of a careful listener. Seemingly aware of this, Bartolomeo Meduna suggests that silence and submission are intimately connected to wonder: students should not wander in their thoughts or "build castles in the air," but rather close their mouths and listen to their teachers with "wonder."⁷¹ Wonder, however, is a strange response, one that signifies a lack of personal investment. In his *Aphorisms* of 1603, Orazio Lombardelli (1542?–1608) describes formal education in precisely this way, as a "restraining of the passions, tempering anger [and] moderating one's thoughts."⁷² In his student manual of 1604, Cesare Crispolti (1563–1608) echoes these sentiments, recommending that a student, with a book in his lap, try hard to reduce textual ambiguities, with the maximum courtesy: that is, "with modesty, without passion and [self] interests."⁷³ Wonder captures this sense of detachment; it signals,

⁷¹Meduna, 85–86.

⁷²Lombardelli, 5: "Onde l'opposito [I]dee concludersi: perche lo Studio frena le passioni; abbassa l'orgoglio; ammolisce la fiera; addolcisce i costumi; insegna la modestia; tempera la furia; modera i pensieri; esorta a viver contento del poco; nobilita la rozzezza; placa gli sdegni; rende l'Huomo affabile; palesca, e difende la verita; compone le mentis; fa discernere i veri beni dagli apparenti; in somma riduce la parte bestiale dell'Huomo ad un viver non pure humano ma quasi angelico."

⁷³Crispolti, 60: "Oltra i detti significati, dimostra il libro aperto, che'l dottore [i]dee interpretare i libri e sforzarsi, quando sono ambigui, di ridurli ad ottimo senso, massimamente quelli de'gentili: e ancora correggerli con modestia, senza passione, e interesse."

explicitly for Meduna and implicitly for Lombardelli and Crispolti, a mind and style of comportment fully aligned with the climate of university education.

In the anatomy theater, wonder cut across several traditions. It intersected with the ideals described in comportment manuals; and, as we saw in his discussion of the *ostioli* of the veins, Fabrici associated wonder with the contemplation of the causes of anatomy. In doing so, he tapped the long philosophical tradition of wonder, which highlighted the contemplative aspects of Aristotelian natural philosophy.⁷⁴ Contemplation, wonder, self-restraint — these qualities became habitual in the anatomy theater. In his 1647 *Syntagma anatomicum*, Johann Veslingus (1598–1649) describes the history of anatomy as a history of contemplation. He then notes that the anatomy theater is a place to “behold” rather than “dispute” the causes of anatomy, revealing that the anatomy theater had been transformed from a space of disruption and disputation into a space of quieter contemplation.⁷⁵

In the late sixteenth century and inside the anatomy theater, natural philosophical wondering combined with the social codes and behavioral habits of Renaissance students. When medical students called the anatomy demonstration “civil” and, inside the anatomy theater, emphasized the modesty and restraint with which they dissected and prepared the specimens, they too gave voice to the experience of silent detachment and obedience.⁷⁶ The convergence between natural philosophy and behavior suggests that the Renaissance student was fundamental to the increasingly deep and well-maintained tradition of Aristotelian natural philosophy in medical education, and to the habits of thought that informed anatomical

⁷⁴In the *Metaphysics*, Aristotle, 1966, (I.2.982b), defines wonder as the beginning of, and as an impetus to, causal explanation: understanding cause, wonder ceases. Rather than discover cause and thereby dispel wonder, however, Fabrici seems to characterize all of nature as worthy of wonder. On the history of wonder and natural philosophy, see Daston and Park, 109–72.

⁷⁵Veslingus, “To the reader”: “Revocandos itaque censui exerrantes, atque ut publicis dissectionibus maiore cum studiorum emolumento interessent, opusculum hoc concinnavi, rerum in solemnibus corporis humani dissectione mihi demonstrandarum indicem. Temperavi a controversiis, quippe quae cathedris magis theoreticorum aptae, quam Anatomicorum theatri; ad quae spectandi potissimum causam concurritur, non disceptandi.”

⁷⁶Given this history of public anatomies, the later sixteenth-century tradition only marginally evokes the energized scene featured in the frontispiece to Vesalius. That scene evokes disputation as well as hands-on participation and seems to argue that the private dissection (which traditionally included these features) should be a model for the public one.

knowledge well into the seventeenth century.⁷⁷ This convergence also suggests an early chapter in the history of objectivity, for wonder reflected restraint and, as a passion-free response, disinterestedness. In these ways, then, the practices evolving around natural philosophy were not retardants to, but rather catalysts for, the flame of scientific inquiry.

6. CONCLUSION

A history of anatomy that includes inquiry, practice, and comportment allows us to revise our assessment of public anatomies as spectacular, carnivalesque celebrations of the human body. In Padua, student and university records reveal that public anatomies were staged for the civic betterment of the community. Public demonstrations of anatomy, moreover, were increasingly separate from surgery and from the manual exercises associated with it. These demonstrations were formalized, ceremonial presentations of academic research. This is not to say that public anatomies were not theatrical — they included a heightened rhetoric of wonder and contemplation, musicians and civic symbolism — but only that the meaning of *theatrical* should be contextualized in the environment of the university, which had its own rituals and protocols for such performances.

The ideals of silence, obedience, and the acceptance of authority partly determined the atmosphere of tranquility inside the anatomy theater. Helping to structure the discourse of academically trained physicians — as opposed to practicing surgeons or charlatans — natural philosophy permeated the environment of university education, including the anatomy theater and its demonstrations. In the Renaissance university these ideals would help train students in disciplinary knowledge. They would also cultivate maturity as a set of attitudes, beliefs, and practices essential to the process of transforming adolescent students into adult scholars, practitioners, and bureaucrats. If civility and maturity lay implicit in the Venetian Senate's decrees for the anatomy theater, they emerged indistinguishable in the comportment manuals of Guazzo, Della Casa, Meduna, Lombardelli, and others.

Civility is a Bildungsroman, a coming-of-age story, in several senses.

⁷⁷Fleck, 20–52, explains that the scientific fact was a collaborative production involving corroborating observations and observers, as well as neophytes and experts initiated into the ways of seeing and the habits of thought developed and exercised during a particular period. Accordingly, the anatomy theater provided a space for professors to elaborate their readings of ancient texts, but it also encouraged silence and docility, specific habits of thought, in its spectators. See also Elias, 1:47–71, 161–82, 2:363–81.

Not only does it involve the progressive maturity of students: it also involves professors, classrooms, and institutions, for each help to decipher procedures, to set the limits of knowledge (based on regular as opposed to rare phenomena), and to endorse specific epistemologies and responses to nature. As Steven Shapin argues, civil behavior strengthened the social order; it depended on trust, the moral backbone of knowledge, and the cultivation of disinterestedness as a quality that eventually granted scientific certainty.⁷⁸ The genealogy of this civility may be found at the university and in the pedagogical programs of Renaissance humanists, medical and otherwise. For the history of anatomy, civility involved Aristotelian natural philosophy and an epistemology based on the conceptual coordination of particulars rather than on the particular structures of anatomy *per se*. It also involved a range of appropriate and learned responses: students had to learn restraint and disinterestedness before these features could be seen to inhere in the knowledge they produced.

When medical students chose restraint and modesty to characterize their habits, they did so by implying that these habits were modeled on those of their teacher; imitating Fabrici well would prevent him from dismissing them from the demonstration.⁷⁹ Imitating an adult, then, was one way to become an adult. But the passage from adolescence to adulthood was, of course, more complicated. When medical students began to imagine the anatomy demonstration and the post-op burial ceremony as conjoined, the one prefiguring the other, they revealed a deeper consideration of the codes of civility surrounding death. They may not have identified with the cadaver, which (according to university statutes) was supposed to be the body of a criminal or a foreigner, both of which had different personhoods than their own. But students sensed the importance of upholding burial rituals and respecting the journey from this world to the next.

⁷⁸In contrast to Shapin, 42–125, who suggests a particularly English version of civility, Daston, 1994, 37–45, shows that similar codes of civility and sociability pervaded early scientific societies on the Continent as well. Findlen, 97–128, provides Italian examples. Whereas Shapin, 9–14, 66–74, develops the idea that seventeenth-century English civility depended in part on elite anxiety about class mobility and the redefinition and extension of the ideas and practices of civility, this essay argues that by the late sixteenth century, civility included such notions as self-detachment, restraint, and obedience.

⁷⁹The emphasis on imitation has at least two origins. Humanists maintained that students should seek out the best teachers and then imitate them. For example, see Castiglione, 45–48. The relationship between teachers and students was also figured as a paternal one. For a discussion of paternalism, pedagogy, and Vesalius, see Park, 2000, 38–39.

In his lecture to university students, Cremonini approaches the subject of death from another direction but provides an even stronger connection between it and maturity. Echoing Aristotle's *Parts of animals*, he claims that students too often fail to recognize the fundamental distinction between the immutable heavens and the mutable world; they fail to learn how "nature" — their "marvelous teacher" — "incessantly puts on and weds diverse forms": the "smallest of seeds" can produce the "grandest of things"; "in this [capacity] the oak tree is superior to gold, in this the lion is superior to the oak, and man to the lion."⁸⁰ Cremonini emphasizes teleological development, the idea of coming-into-being that was the cornerstone of Aristotle's works. However, he compares this failure to a more common, adolescent one: these students believe that they are "not born into existence from some initial time," that they were not children and that they will not grow old; they suppose their identities to be "complete and unchanging." Cremonini ridicules this adolescent mindset as "possible vaguely to imagine, but in no way to understand."⁸¹ For Cremonini, maturity depends on an awareness of mortality, of the nature and meaning of death.

These ideas and trends in the history of anatomy and the history of the university demonstrate that the significance of the anatomy theater was neither solely didactic nor solely civic, for it served the intellectual purposes of professors and the civic aspirations of the premier educational institution of the Republic. For medical students, the theater displayed the importance of their nations before a wider community. It also regulated, disciplined, and trained their physical and mental habits. Built by 1595, the anatomy theater reinforced the notion that anatomical inquiry was as conceptual an enterprise as it was physical. It helped to produce a more formal tradition of public anatomy demonstrations, encouraging as well the auditory rather

⁸⁰Cremonini, 1948, 37–39: "Percorrendo il mondo con tale indagine rivolta fuori di sè, senza neppure compiere molta fatica riuscirà a scrutare a fondo come è fatta la realtà: in virtù di quale meravigliosa maestra cioè la natura — come il mitico cameleonte, per il quale non v'è nessun colore che esso non sappia assumere — incessantemente si vesta ed incessantemente si spoglia di forme diverse; in virtù di quale capacità essa, stimolata da semi piccolissimi, sia in grado di produrre cose grandissime; in che cosa la quercia sia superiore all'oro, in che cosa il leone sia superiore alle querce, e l'uomo al leone; in grazie di quale indissolubile e venerando legame di amore tutti gli esseri naturali sono uniti . . . dalle cose infime si possa salire alle eccelse attraverso armoniche graduazioni."

⁸¹Ibid., 39: "contemplerà lui che non è pervenuto all'esistenza da alcun inizio temporale, che non è stato bambino né giovane e non sarà vecchio, ma susiste perpetuamente nella sua identità con sé, nella sua compiutezza ed ineffabilità, vivendo una vita felicissima consistente nella contemplazione intellettuale di se stesso, quale ci è possibile vagamente immaginare ma in nessun modo comprendere."

than visual apprehension of anatomical particulars. Disputation gave way to silent participation and benevolent forms of acquiescence. While these habits may have allowed for a more thoughtful consideration of burial and death and suggested a more proximate relationship between civility and maturity, they also fortified humanist learning as it permeated the field of anatomy. In these ways, the anatomy theater civilized students and made anatomy a productive part of the late sixteenth-century humanist environment of Padua.

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