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THE ORGANISATION OF MEDICAL PRACTICE IN MALPIGHI'S ITALY[1]

As a means of exploring medical practice in Italy and the ways in which this was regulated around the time of Malpighi, I shall begin with a document contained in the records of the Roman *Protomedicato*. Although it dates from before Malpighi's birth, and regards a place with which he would become connected only in later life, the document can tell us much about medical organisation in the Italian states throughout the early modern period. This single record will provide a point of access for exploring early modern medicine on its own terms, according to its own categories, that is, as Malpighi himself might have understood it. The general discussion of medical practice and regulation in early modern Italy will set the stage for understanding some of Malpighi's own actions, achievements and opinions.

In 1619 the then *Protomedico* General of the Papal States, Lorenzo Garzonio, wrote a pamphlet entitled "Discourse on the difficulties arising within medicine".[2] As *protomedico* general, Garzonio had been elected from amongst the ranks of the Rome College of Physicians to be its head for one year, having been a College member for at least three years, of at least forty years of age and resident in Rome. He had authority over all physicians practising in Rome and the Papal States, and examining and licensing powers over surgeons, barbers, apothecaries, charlatans and mid-

[1] I would like to thank the Wellcome Trust, the Cambridge Wellcome Unit and Churchill College, Cambridge for making this research possible. I am indebted to Domenico Bertoloni Meli for his comments and suggestions.

[2] "Discorso dell'Inconvenienti che nascono nella Medicina fatto da Lorenzo Garzonio Protomedico Generale 1619", Archivio di Stato, Rome (hereafter A.S.R.), *Università*, busta 61, fols. 776-780*v*. All translations are my own, except where noted.

wives. This included the power to try and punish offenders. Garzonio began his complaint by noting that the College of Physicians was established so that "the things pertaining to medicine, profession so noble and necessary, be overseen and directed by intelligent and leading people". It had been granted "supreme authority and power in this, so that with prompt punishment it could stem the audacity of those who, knowing no more than a stone about medicine, took to doing any thing and action within its province, to the people's very great harm". But, he continued, recent events have seen the erosion of "the authority, decorum and esteem due it". In fact, because the College has been obstructed in conducting criminal and civil trial against transgressors, "several things of very great harm to the public have found their way in little by little".

First of all, Garzonio recounted that he had moved against the city's grocers (*droghieri*), who had been stocking and selling theriac and mithridatum, in contravention of College edicts. Only apothecaries should have been able to sell the two drugs. But Garzonio's motions against the grocers were blocked by the state's Apostolic Chamber, which claimed jurisdiction. The College should have initiated a lawsuit to defend its authority, but lacked the financial means, "as the *Protomedico* and College, for its small revenue, have little money to spend". Such affronts, Garzonio concludes, "have given rise and give rise to many abuses and much disorder, so that now it can no longer in truth call itself Medicine but corruption and ostentation".

But this was just the beginning. In fact, Garzonio's complaint was against the way in which all aspects of healing were regulated – or not, as the case may have been. It involved the entire medical hierarchy. Disorders resulted when the College was unable to punish physicians for practising without the requisite examination and approval. Disorders occurred when physicians colluded with apothecaries by signing prescriptions with only their initials, so that physicians could deny issuing them if wrongdoing was suspected and apothecaries could write up prescritions themselves. Disorders took place when surgeons did not respect the limits of their profession. They operated before the intervention of physicians, so that "very often whilst they are treating a part without the body having been purged [by physicians], a great quantity of humours are attracted to the afflicted part which cause gangrene and incurable diseases or render the treatment more difficult and of greater duration". Moreover, surgeons "transgress their own faculties, since those who have not been found apt in all cases during the examination are only permitted to treat light ones, but despite

this they put their hands to anyone who comes to them". In particular, barbers are prohibited from drawing blood without a doctor's order, but when accused they plead exceptional circumstances. As a result they can draw blood when, from whom and in any quantities they choose, leading to many "disorders". Finally, barbers and surgeons are supposed to contribute to the cost of instruction in anatomy put on by the College for their benefit, as well as attending it. But because of the weakened authority of the College this is not observed. "From this arises that both surgeons in treating and barbers in bloodletting, not ever having seen the position of the members, arteries, veins and nerves, and their loci, make atrocious errors, cutting one thing for another and so on, to the extreme and irreparable harm of their patients".

Midwives, too, did not escape Garzonio's wrath. Many practised without the necessary examination. What was worse, licensed midwives saw fit to perform "all manners of cures". If the College moved to fine such women, they merely pleaded poverty and so there was nothing further the College could do, since it was prohibited from administering corporal punishment. As a result, according to Garzonio, midwives frequently caused harm to mothers and infants, "and this I have observed in Rome is also frequent amongst leading women and of higher reputation and condition". Charlatans and mountebanks, perhaps not surprisingly, also figured in Garzonio's complaint. It was not just their presence that upset him, but the difficulties inherent in keeping tabs on their activities. Thus charlatans may have been observed by the *protomedico*'s deputy whilst they prepared the medicines they proposed to sell, and subsequently licensed. But because they are "mendacious, vile and of little scruple, they constantly adulterate them, so that one can no longer ascertain whether what they sell is the same as that for which they were licensed". This is because charlatans cannot be inspected like apothecaries, who must account for the quality and condition of their medicines. "If the College had the authority which it had before", Garzonio added, "it would not admit such people to so noble a profession, nor would it permit the affairs of medicine to be dealt with by anyone other than true physicians and apothecaries, which would in truth be a thing of great consequence, of benefit to the public".

At the end of his "Discourse", Garzonio conludes, not suprisingly, that all of the abovementioned abuses within medicine owed their origin to the "weakened and diminished authority" of the College of Physicians. I have quoted from Garzonio's rather rambling "Discourse" at length because it paints a useful portrait of the world of healing as those at the top of the

medical hierarchy thought it should appear. Garzonio's complaint seems to hark back to some mythical golden age. It is typical of the early modern period in advocating a strict separation of the "professions" which made up the healing arts.

The Physicians' Clothes

The seventeenth century witnessed a tightening up of the limits of authority into which the art of medicine had divided itself. The intention was to prevent conflicts among physicians, surgeons and apothecaries. Medical authority defended and developed the specific place of each, whilst respecting a sacrosanct professional hierarchy. The writers of medical treatises stressed the hierarchical divisions, the boundaries, which separated medicine. The occupational limits and the provinces of each part were regarded as part of a divine order which regulated the Christian community. Physic was a noble art, because its practise was compatible with nobility, as enshrined in the doctorate. But it depended on two mechanical arts in order to function. At the bedside of the patient, in consultations and prescriptions, physicians wrote in Latin and gave orders, which were carried out by their lesser colleagues, the surgeons and apothecaries. Physicians were specialists of internal medicine, but avoided all manual activities.

There was a tendency for physicians to define themselves in terms of what they were *not* and what they did *not* do. They were not apothecaries or surgeons, whose art was mechanical and whose knowledge was acquired by apprenticeship or, in the case of some surgeons, training at hospitals. Their titles reinforced this distinction. In Naples, physicians, along with lawyers and small landowners, were awarded the honorific *magnificus dominus*, while surgeons and apothecaries, along with architects, engineers and notaries, were given that of *egregius* or *nobilis* (though the latter was by no means an indication of nobility).[3] When Giovanni Borelli advised Marcello Malpighi on how to comport himself in Messina – the latter was about to take up a chair there – he mentioned the need to maintain a carriage as a sign of status. "No physician would be without one", Borelli wrote. Indeed

[3] Giovanni Cosi, *Il notaio e la pandetta: microstoria salentina attraverso gli atti notarili (secc. XVI-XVII)*, Galatina, 1992, 11.

it could be done with so little expense that "many apothecaries and notaries have them".[4] And physicians were most certainly not empirics, though the public may not always have been aware of the distinction. For the Neapolitan *protomedico* and professor of practical medicine Antonio Santorelli, the difference was between those who possessed *scientia* – knowledge acquired at university and recognised in the doctorate – and those who did not.[5]

The itinerant practitioner, apothecary or barber-surgeon who suggested treatments for internal diseases, despite knowing little or nothing about the body's composition, its humours and temperaments, was seen not only to violate the technical confines of the medical corporation, but to threaten the order of the whole. As Scipione Mercurio wrote in 1603: "therefore, by treating people, they are presumptuous and arrogant, as they are not ashamed to practise so important an art and disregard and do not care that they are losing their souls, since every time they do it they commit a mortal sin". Alas, he remarked, "every measly surgeon [*cirugichetto*], every little barber [*barberuzzo*], every old woman wants to play the doctor".[6] It was an offence even to appear to be a physician, by dressing in the robes which identified his status in society and separated him from the mass of healers. Each occupation had its recognised apparel. Malpighi worried enough about how to dress in Messina that he wrote to Borelli for advice.[7] In general, the physician's gown was lined with dark fur, he wore a velvet cap, black gloves and a large gold ring, and his horse had gilded stirrups and was draped with a blanket known as a *valdrappa*. Never mind that the stirrups, *valdrappa* and similar pomp were generally limited only to great princes and high prelates in the Church.[8] Never mind that, as the Tuscan grand duke's physician Francesco Redi complained in 1682, "professors of medicine at Padua must have a large retinue of servants and horse attendants and must wear long, majestic robes renewing them daily, and he who does not keep up this pompous affectation is considered

[4] Letter from Borelli to Malpighi, 3 June 1662, *MCA*, I, 126.

[5] Antonio Santorelli, *Il protomedico napolitano, ovvero dell'autorità di esso*, Naples, 1652, 44.

[6] Scipione Mercurio, *De gli errori popolari d'Italia*, Verona, 1645, 207 and 214.

[7] In reply, Borelli wrote that the gown was not generally worn in Messina. Instead doctors dressed "as lay people, more solemnley than the others, that is with a longer cloak than is usual", *MCA*, I, 126.

[8] Mercurio, *Errori popolari*, *op. cit.*, 114.

worthless even if he is the most learned person of this world".[9] Never mind that, as Tommaso Garzoni complained in 1585, "it is enough for the gown to give them honour, ring on their fingers, even though they could not wrap up three pills in a paper bag".[10] What was worse was that surgeons would dare to imitate the physicians' apparel. The right to wear a gown, and related accoutrements, was of symbolic importance. It attested not only to the fact that its wearer had imbibed a certain amount of technical and theoretical knowledge, but that, as a doctor, he had professional status, the *condizione civile* of doctors of law and medicine. So that there was no confusion, the *pretore protomedico* of Palermo prohibited licensed barber-surgeons from going on horseback with a *valdrappa*, because they were not graduates.[11] And in 1594 the Bolognese *Protomedicato* threatened a fine of twenty-five gold *scudi* and three lashes of the whip against those "non-doctors who dare to appear in public in the habit and dress of a doctor ... to the dishonour and derision of true doctors".[12]

The Age of the Colleges

The Medical Colleges and *Protomedicati* the length and breadth of Italy were ever busier trying to maintain occupational boundaries as they became increasingly more restrictive. The period from the middle of the sixteenth century to the early eighteenth century might indeed be termed the "age of the Colleges".[13] There were fourteen Colleges in Italy by the early seventeenth century. Rising collegial expectations regarding their

[9] Francesco Redi writing to Lorenzo Bellini, 15 December 1682, in Redi, *Opere*, Naples 1741, IV, 89; cit. in Carlo Cipolla, "The professions: the long view", *The Journal of European Economic History*, II, 1973, 37-52, at 49. See also Carlo Cipolla, "The medical profession in Galileo's Tuscany", in his *Public health and the medical profession in the Renaissance*, Cambridge, 1976, 67-124.

[10] Tommaso Garzoni, *La piazza universale di tutte le professioni del mondo*, Venice, 1616, 70*v*.

[11] V. Parisi, *Capitoli ed ordinazioni della felice e fedelissima città di Palermo, sino all'anno corrente 1768*, Palermo, 1768, part III, section XX, no. 88; cit. in Giuseppe Pitrè, *Medici, chirurgi, barbieri e speziali antichi in Sicilia, secoli XIII-XVIII*, Rome, 1942, 133.

[12] Archivio di Stato, Bologna (hereafter A.S.B.), *Studio*, b. 214, no. 2. It is difficult to say how frequent such "transvestitism" was. The Bolognese edict is followed in its folder by three denunciations against people who deceitfully practised as physicians, complete with fake doctorates (one is undated, one is from 1668 and one from 1742).

[13] Elena Brambilla, "Il 'sistema letterario' di Milano: professioni nobili e professioni borghesi dall'età spagnola alle riforme teresiane", in A. De Maddalena, E. Rotelli, G. Barbarisi (eds), *Economia, istituzioni, cultura in Lombardia nell'età di Maria Teresa*, vol. III, *Istituzioni e società*, Bologna, 1982, 79-160, at 80.

own power over other practitioners, confronted by the conflicting jurisdictions of other authorities, lay behind Garzonio's complaint. This included increased authority over the barber-surgeons' and apothecaries' guilds.

During the late Middle Ages some specialist practitioners like barber-surgeons and apothecaries had organised themselves into trade guilds. In principle these were subordinate to the medical faculties, but in practice they had a good deal of autonomy.[14] However, this situation changed during the early modern period. Beginning with an interest in regulating the illicit practice of medicine by means of licensing, the Medical Colleges and *Protomedicati* sought to extend their authority to the examination and approval of barber-surgeons and apothecaries. In Naples the *protomedico*, appointed directly by the viceroy, inspected apothecaries' shops alongside officers of the apothecaries' guild, the so-called *Speziali degli Otto*, from at least 1530. In Bologna the development was even more pronounced. Here the *Protomedicato* was a part of the the city's College of Physicians, itself one half of the *Collegio degli Artisti* (the other half being the lawyers). In the 1560s the Medical College was awarded powers of inspection and by the end of the century the apothecaries' guild had lost its authority to license apothecaries to the College. Furthermore, the *Protomedicati* of Naples, Rome and Bologna were given the authority over civil cases, that is, disputes between patients and practitioners.[15]

Indicative of the rise of the Medical Colleges in general was the foundation of the Florentine College in 1560 by the Tuscan grand duke. It supplemented the old Guild of Physicians and Apothecaries, considered outdated because it united occupations which were considered separate and subject to hierarchical distinctions. Membership in the new College was the crowning achievement in a physician's career, bestowing both power and prestige. The College examined new physicians and surgeons, licensing them to practise, and eventually extended its activities to all aspects of the medical profession.[16] The creation of the Florentine College was in fact re-

[14] Toby Gelfand, "The history of the medical profession", in W. F. Bynum and R. Porter (eds), *Companion encyclopedia of the history of medicine*, London, 1993, vol. II, 1119-1150, at 1122.

[15] Gianna Pomata, *La promessa di guarigione: malati e curatori in antico regime, Bologna XVI-XVIII secolo*, Rome, 1994, 43. In practice, however, such cases continued to be heard in ordinary courts as well, such as the provincial *Udienze* of the Kingdom of Naples and the governor's tribunal in Rome.

[16] Cipolla, "Medical profession", *op. cit.*, 72-73.

flective of profound social change, as Carlo Cipolla has pointed out. Physicians were assimilated into the upper class, whilst surgeons, barbers and apothecaries were ranked with the lower orders.

The latter groups retained their guilds, and sometimes even limited degrees of power over their members. This was true, for instance, of the barber-surgeons' and apothecaries' guilds within the limits of the city of Naples. Guilds had the power to fine their members for misdemeanours resulting from "weakness, carelessness or negligence".[17] The guilds had an open *matricula* – whoever had the necessary skills was eligible for guild membership – the intention being to eliminate competition from outside. Even though there was an internal hierarchy of positions, all members could become masters, and all masters could be elected to the higher positions (consuls or priors), according to the general rules of promotion. The system was competitive, encouraging emulation and promoting members on the basis of merit.[18]

The Colleges of Physicians, on the other hand, had a *numerus clausus* of ordinary and supernumary positions, and membership depended on criteria of birth and social status. There were essentially two types of Medical College: those associated with the universities, which had a monopoly over the granting of doctorates, and, less powerful, those associated with certain cities, which had jurisdiction over who practised in the city and its immediate territory (*contado*).[19] And there was a further, overlapping grouping: the medical faculty, which included the university teaching body and all of those admitted to the title of physician (*medico fisico* or *medico filosofo*) within a certain jurisdiction. In theory, degrees conferred by the university Medical Colleges were valid without territorial limitations, following medieval tradition. However, both types of College seem to have fought against this, claiming at least the authority to license physicians who had doctorates from other states. The city or territorial Colleges were the most rigorous in this regard. Some sought to exclude foreign doctors from practising in the area under their jurisdiction. This included doctors from other states and cities, or even from different provinces of the same state.

However, in large cities the few privileged members of a College could

[17] *Statuti del nobil colleggio delli spetiali dell'alma città di Roma*, Rome, 1607, 34.

[18] Brambilla, "Sistema letterario", *op. cit.*, 84.

[19] Elena Brambilla, "La medicina del Settecento: dal monopolio dogmatico alla professione scientifica", in F. Della Peruta (ed.), *Storia d'Italia. Annali 7: Malattia e medicina*, Turin, 1984, 5-147, at 7.

not and did not pretend to achieve a monopoly over the profession. In Milan, for example, where the College was open only to the local patriciate, College members were far outnumbered by the bourgeois physicians they had recognised. The Bolognese College was open only to Bolognese citizens – which meant having a Bolognese father and grandfather – but the College reserved the right to make honorary exceptions. The first to be admitted in this way was Malpighi in 1691. By this time he was archiater to Pope Innocent XII, and expediency, if nothing else, dictated that he should be elected a member.[20] The number of College members fluctuated (as high as twenty-three), but did not keep pace with the rapidly expanding number of physicians in the city. Whereas at the beginning of the seventeenth century College members represented thirty percent of Bolognese physicians, by the century's end they represented only seventeen percent.[21] This inevitably meant a high representation for members of certain families within the College and the creation of family dynasties of physicians. The Bologna College is nevertheless striking for its relative openness. Of the eighty-four physicians admitted between 1593 and 1692, sixteen had artisan fathers (including a handful of apothecaries and barber-surgeons), twelve were the sons of *gentiluomini*, twelve the sons of merchants, ten the sons of physicians who were College members and four the sons of physicians who were not College members.[22] More open still was the College in Salerno. It was exceptional on two counts. First, it accepted all local graduate physicians as eventual members, as the limited places (ten in all) became available. Second, the positions within the College hierarchy were distributed on the basis of seniority, making it a gerontocracy.[23]

The power of the Colleges in seventeenth-century Italy had a number of important effects on the practice of medicine. The territorial Colleges of smaller cities, like Pavia, sought to deny the right to practise to any but its own members. These limitations eventually extended to those lacking the noble or "civil" requisites introduced into the College statutes. The Colleges sought to enforce the perceived nobility of the medical profession. Several denied access to physicians from merchant and artisan families.

[20] Adelmann, *Embryology*, I, 617-618.

[21] A.S.B., *Studio*, 197 and 235 for lists.

[22] A further seven were the sons of notaries, eighteen were unknown and the rest were from a variety of occupations. From a survey of the *civilitates probationes* by Pomata, *Promessa*, *op. cit.*, 36.

[23] Aurelio Musi, "Il Collegio medico salernitano in età moderna", in M. Pasca (ed.), *La scuola medica salernitana*, Naples, 1988, 29-36.

The Pavia College went so far as to obtain a privilege from the emperor in 1667, by which all College physicians became "Counts Palatine" upon their co-optation.[24] In effect, the Colleges codified social inequality. They reserved for their own members control over examinations and licensing, as well as positions of prestige in the state bureaucracies. Most College members did not even practise medicine, in keeping with their patriciate status; they left that to those physicians ineligible for College membership. The dominance of the Colleges also affected the nature of examination and degree giving, which shifted from being a check of merit to proceedings aimed at ascertaining the requisites of birth. For those ineligible for College membership, the degree declined in value because it could not pave the way to collegial access.[25] And because the Colleges often shared their hierarchies with those of university medical faculties, this effectively disqualified many physicians from university careers.

"Ancients" and "Moderns"

The power of the Colleges affected the way new ideas and theories were recieved. Most notably, the Colleges were the site of battles between the medical "ancients" and the "moderns". Opposition to the Colleges was manifest in medical academies, whose members wanted to be defined, not by birth or seniority, but by their studies, knowledge and publications. At the same time, however, the main aim of these academies was recognition for their members and admission into the Medical Colleges, rather than the elimination of the latter.[26] New calls for scientific rigour also came from those who were not directly opposed to the Colleges. On the one hand, from surgeons, completely excluded by their very nature. On the other hand, from physicians who made up the College elite, such as Malpighi in Bologna. Although Malpighi's positions in this regard are not entirely clear, it appears that he defended the Bolognese College's exclusivity because it was, together with the university, one of the few lay institutions able to assure research based on lay, as opposed to ecclesiastical, incomes.

[24] Carlo Cipolla, "The professions: the long view", *The Journal of European Economic History*, II, 1973, 37-52, at 51.

[25] Brambilla, "Sistema letterario", *op. cit.*, 86.

[26] Brambilla, "Medicina del Settecento", *op. cit.*, 34.

In the wake of ongoing attacks from Rome on Bologna's autonomy, Malpighi supported the role of its College. He preferred ist theoretical rigour to the empirical permissiveness of Roman clientelism that episcopal control would have brought.[27]

Malpighi's visit to Naples in 1662, on the way to take up the chair of practical medicine at Messina, had placed him right in middle of the struggle there between ancients and moderns. He met the moderns Tommaso Cornelio and Leonardo di Capua, who went on to found the Accademia degli Investiganti a year later. Malpighi also attempted to attend the lectures of Carlo Pignataro, who had the chair of the practice of medicine, but was barred because he was not enrolled as a student there.[28] Pignataro was a traditionalist and, without doubt, the most powerful physician in the kingdom. In addition to holding medicine's most important chair (from 1654), he was vice-chancellor of the city's Collegio dei Dottori, which meant he was head of that part of the College responsible for physicians (the other part being lawyers).[29] Most importantly, he was the *Regio Protomedico* – the kingdom's "first physician", with authority over all non-graduate practitioners – having been appointed by the viceroy in 1656. In Naples, the most important position in the state's medical bureaucracy often went to people at the apex of the medical establishment. Pignataro served a record five terms, making him the kingdom's longest serving *protomedico*.[30] In holding a mutiplicity of important offices, he was typical of College physicians throughout Italy.

While it seems entirely natural to select *protomedici* from the ranks of professors of medicine, what is surprising about the example of Pignataro is that a man in his position should have been giving university lectures at all. Throughout Italy academic salaries declined during the seventeenth century and were often paid in arrears. As a result, many of the best lecturers accepted well-paying positions outside the university or offered private lessons to paying students, entrusting their university lectures to substitutes.[31] Moreover, the dominance of Medical Colleges meant that stu-

[27] Adelmann, *Embryology*, *op. cit.*, I, 63, 643; Brambilla, "Medicina del Settecento", *op. cit.*, 43-44. M. Cavazza, *Settecento Inquieto*, Bologna, 1990, 91 ff.

[28] Adelmann, *Embryology*, *op. cit.*, I, 203 and 211.

[29] Ileana Del Bagno, *Legum Doctores. La formazione del ceto giuridico a Napoli tra Cinque e Seicento*, Naples, 1993, 167-173.

[30] David Gentilcore, "Il Regio Protomedicato nella Napoli spagnola", *Dynamis* (forthcoming).

[31] Richard Kagan, "Le università in Italia, 1500-1700", *Società e storia*, 28, 1985, 275-317,

dents would choose to study under a College member in order to increase their chances of eventually gaining access. The publicly granted doctorate, based on mnemonic formulas of medieval origin, became a mere preparation or prerequisite for enrolment and further training within a Medical College, for those who were eligible, or with a recognised professor for those who were not.[32] In Naples, the university had been founded by royal will and lecturers were still appointed by the sovereign. The head of the university, the Chaplain Major, was not a scholar, but a state functionary, and university affairs were controlled by the government.[33] The Chaplain Major, in fact, set the curriculum for the teaching of medicine, traditional in nature. The Spanish authorities had sought to turn the *Studio* into the true academy of the kingdom, by means of legislation and by increasing the number of chairs. But private instruction continued to expand despite this, in addition to the ever-present alternative of the School at Salerno, which did not require attendance. The 1616 pragmatic resulting from the viceregal university reforms defined "substitutes" as those who filled in for lecturers when the latter were ill or otherwise unable to come; they were not to be used as replacements. Except during vacations, no lecturers were to give lectures "in their own private houses, nor in any other place ... so that all [students] attend the university, where, in public, they will hear sound and healthy learning". A fine of one hundred ducats was imposed for a first offence; for a second offence, the lecturer was to be fined two hundred ducats "and relegated for three years to the Island of Capri".[34] Such was the widespread nature of the custom that private houses were no longer spacious enough. In 1621 the government ordered that private lectures were not to be given in churches, chapels or other religious institutions, or in the cloisters of these buildings.[35] In 1663 strict orders against both teachers and students were posted by the Chaplain Major. Some arrests resulted, occasionally involving lecturers and their students

at 305-306. The same occurred in France. See, CHARLES COURY, "The teaching of medicine in France from the beginning of the seventeenth century", in C. D. O'MALLEY (ed.), *The history of medical education*, Berkeley, 1970, 121-172, at p. 145.

32 BRAMBILLA, "Medicina nel Settecento", *op. cit.*, 20.

33 NINO CORTESE, "Il governo spagnuolo e lo Studio di Napoli", in his *Cultura e politica a Napoli dal Cinque al Settecento*, Naples, 1965, 31-119, at 40.

34 "De regimine studiorum Neapoli", *Pragmaticae, edicta, decreta, regiaque sanctiones Regni Neapolitani... collocatis per... Blasium Altimarum*, Naples, Jacobi Raillard, 1682-95, vol. III, 1246-1247.

35 CORTESE, "Studio di Napoli", *op. cit.*, 48.

sitting at regular rows of desks, taking notes. Thus in 1669 Giovan Battista Coraggio, lecturing on medicine, was caught *in flagrante* and jumped from a window and hid in a nearby church, while the guards arrested the students and sequestered the desks.[36] But the few arrests could not stem the practice. In 1680 the Chaplain Major complained that more than half the university attended private lectures, some of which had as many as two hundred students, with the lecturers earning as much as three hundred ducats a month.[37] If this was true, the highest paid lecturer could earn as much in two months as he could earn in one year from his university chair.[38]

In many respects the new academies offered a challenge to this stagnant system, offering scope for scientific and experimental investigation. Certainly, the ancients had the advantage: they often occupied all the important chairs and could make use of mechanisms like censorship and the Inquisition to defend their cause. The moderns were dependent on private means or the chance support of a liberal patron. Organising themselves into academies was one solution, but this required even more powerful patronage in order to withstand attack.[39] In Naples the moderns founded the Accademia degli Investiganti, under the patronage of Andrea Concublet, the Marquis of Arena, at whose palace they met. They advocated the teaching of chemistry, which was not then part of the university medical curriculum, and so they gave private lectures. The old plague of private lectures now assumed a new urgency, and Pignataro forbade them. In Messina, too, Malpighi would have problems in introducing "new" subjects into his lectures. He worried a great deal about his lectures at Messina, as his correspondence with Borelli demonstrates. Before Malpighi left for Messina, Borelli informed him that it was the custom to read the lectures in the students' homes, and to distribute the scripts so as to have a greater turnout.[40]

36 A.S.N., *Cappellania Maggiore: Processi antichi*, no. 1570, fol. 29; cit. in CORTESE, "Studio di Napoli", 49.

37 A.S.N., *Cappellania Maggiore: Varietà*, vol. 43; cit. in CORTESE, "Studio di Napoli", 50.

38 Salaries varied from 600 ducats a year for the permanent chair in practical medicine, 400 ducats for medical theory, and 300 for anatomy and surgery, to anywhere from 150 to 50 ducats for the quadriennial chairs. FILIPPO CARAVITA, "Relazione", in G. DE BLASIIS (ed.), "L'Università di Napoli nel 1714", *Archivio storico per le province napoletane*, I, 1876, 141-166, at 151-152.

39 MAX FISCH, "The Academy of the Investigators", in E. A. UNDERWOOD (ed.), *Science and medicine in history: Essays on the evolution of scientific thought and medical practice in honour of Charles Singer*, Oxford, 1953, vol. I, 521-563, at 521.

40 Letter of 3 June 1662, *MCA*, I, 126.

Malpighi unwillingly "condescended" (his word) to this practice. He accepted that it was the only way to arouse students' "curiosity in things which are still new, in brains that have been warped by ancient usages". The only way to interest these students "in all those new things contrary to the old doctrines", Borelli suggested, was to introduce them slowly into his lectures. He must imitate the physician, "who adapts to the sick person's weaknesses, slipping some small amount of bitter medicine into the sweet honey bit by bit".[41]

In Naples meanwhile matters came to a head between the two camps a year after Malpighi's visit. In that year Pignataro had copies of Sebastiano Bartoli's *Astronomiae microcosmicae* destroyed, after one of the ecclesiastical authorities had declared Bartoli's medical system blasphemous (despite the fact that the book had received both the civil and ecclesiastical imprimaturs). Also in 1663 an epidemic of "malign" fevers, accompanied by skin eruptions and high mortality, had broken out around Lake Agnano, near Naples. Following the *protomedico*'s lead, the ancients had ascribed the epidemic to heavy rains, which had prevented the removal of the hemp and flax retted in the lake. The resulting corruption of the air had caused the epidemic. The moderns wanted further studies done, but Pignataro simply forbade the retting of flax in the lake for one year. It may be, however, that this hasty decision and Pignataro's subsequent tenacity were motivated more by a desire to inconvenience the Jesuits, who owned the land surrounding the lake, collecting a thousand ducats every year from it. The Jesuits of Naples had been wont to call for Pignataro whenever they needed treatment. But after the death of the previous viceroy's younger son under Pignataro's care, and the viceroy's request to have worthy physicians sent in from the provinces, the Jesuits now called in the physician who had been sent up from Calabria, Diego Ragusa. To make matters worse, Ragusa sided with the moderns in the Lake Agnano dispute.

The moderns did manage some successes before their ultimate "defeat" of the ancients by the mid-eighteenth century. In 1665, two years after the suppression of his book, Sebastiano Bartoli became physician to the new viceroy, Pedro Antonio d'Aragona. Bartoli had just saved the life of the head of one of the kingdom's most powerful aristocratic clans, Domenico Caracciolo, the Marquis of Brienza, after orthodox treatment

[41] Letters of 16 November and 21 December 1663, *MCA*, I, 186 and 190.

had failed.[42] Three years later Bartoli was appointed to the chair of anatomy and surgery at the university, one of the first moderns to gain a university position. He may also have contributed to an interruption in Pignataro's career as *Regio Protomedico*. In 1665, in fact, d'Aragona appointed Pignataro's rival Diego Ragusa to the post, which he held until 1673.

Though Pignataro was no longer *protomedico*, he retained enough influence to have Bartoli's 1666 work – an "examination of the commonly received dogmas of the art of medicine"[43] – put on the Index and burned. That same year Pignataro, characterised as being "rather more politic than learned",[44] set up the Accademia dei Discordanti to rival that of the Investiganti. Luca Tozzi was its head. Tozzi became a respected champion of the ancients, dying in 1717, after having been appointed to the chair of medical theory in 1695, and *protomedico* for three years in 1696. He was a thorn in the side of university reformers because he had his lectures read by an unpaid substitute whilst he went "daily about the city, doing his rounds and other business".[45] The sessions of the Discordanti were devoted to confrontations of Galenic and modern medical doctrines, with the latter getting the worst of it. Following a series of charges and counter-charges between the two, the Marquis of Arena issued a public rebuke to Pignataro for speaking badly of the Investiganti. As a result, the viceroy and the kingdom's Collateral Council advised the disbanding of both academies.[46]

The dispute between ancients and moderns was more than just intellectual in nature, a debate over theory. It also involved beards, as Giorgio Cosmacini has pointed out.[47] The beard seemed to symbolise all that the moderns disliked about the ancients. Pignataro was nicknamed "Jewbeard", referring to the beards, old-fashioned costumes and affected dignity of the orthodox physicians. In one passage Sebastiano Bartoli remarked that the Galenic physicians, "with long beards and religious hypoc-

[42] On the Caracciolo di Brienza, see Tommaso Astarita, *The continuity of feudal power: the Caracciolo di Brienza in Spanish Naples*, Cambridge U.P., 1992.

[43] Sebastiano Bartoli, *Artis medicae dogmatum communiter receptorum examen*, Venice, 1666.

[44] Giuseppe Mosca, *Vita di Lucantonio Porzio*, Naples, 1755, 17; cit. in Fisch, "Academy", 537.

[45] Caravita, "Relazione", 151.

[46] The Marquis of Arena, having been appointed secretary to the treasury (*Scrivano di ragione*), was assassinated in April 1675. Fisch, "Academy", 537.

[47] Giorgio Cosmacini, *Storia della medicina e della sanità in Italia, dalla peste europea alla guerra mondiale: 1348-1918*, Rome, 1988, 181.

risy, ingratiate themselves with princes, gentlewomen, masters of ceremonies, prelates and similar important people, to whom they give medical service gratis, with the hope of multiplying their gain later".[48] Borelli sympathised with the plight of (clean-shaven) Malpighi in Messina "amongst so many wise-beards, who have never seen anything other than the collections of Galen and Avicenna" (see the figure in the essay by Rosario Moscheo in this volume).[49] More seriously, the ancients-moderns dispute involved crucial issues for physicians, like prestige, power and clienteles. In fact, the ancients only contested the ideas of the moderns in a weak, half-hearted way. What they really objected to were the attempts by the moderns to go beyond the confines of their philosophical societies, threatening not so much the cultural hegemony of the ancients, but their "monopoly on relationships with the public, with clients, power and teaching".[50] For physicians, individual practices and incomes were at stake; while for students, the choice between ancients and moderns could affect their future careers.

For much of the seventeenth century the moderns in Naples made up "a small group of physicians unable to guarantee its followers professional success".[51] The ten years from 1688 saw increased activity by the Roman Inquisition in Naples, which was seeking to eliminate atomism and other related doctrines allegedly spread by Tommaso Cornelio and Leonardo di Capua.[52] The ancients were still able to command the heights of medicine in Naples, exemplified by Tozzi's appointment as *protomedico* in 1696, two years after Pignataro's death. As a result, the modern Lucantonio Porzio, despite fame and a chair at Rome's "La Sapienza", was only just able to obtain the chair of anatomy and surgery at Naples, and this amidst much local opposition.[53] Malpighi faced similar difficulties in Messina. He was reluctant to begin practising medicine there at first, worried about up-

[48] Sebastiano Bartoli, *Astronomicae microcosmicae systema novum*, Naples, 1663, 81; cit. in *ibid.*, 181.

[49] Letter of 21 December 1663, *MCA*, I, 190.

[50] Maurizio Torrini, "L'Accademia degli Investiganti: Napoli, 1663-1670", *Quaderni storici*, 48, 1981, 845-883, at 869.

[51] Musi, "Medici e istituzioni", *op. cit.*, 28.

[52] Luciano Osbat, *L'Inquisizione a Napoli. Il processo agli ateisti, 1688-97*, Rome, Edizioni di storia e letteratura, 1974.

[53] Not that the success of Porzio and other moderns was enough to change the university system. Porzio himself was reported to prefer going on his own medical rounds in the city to lecturing, which was done by a substitute. Caravita, "Relazione", *op. cit.*, 151.

setting the vested interest of the ancients who dominated there. He slowly gained the esteem of the nobility, but it was the ongoing dispute between the ancients and moderns, in which he became embroiled, that contributed to his eventual decision to return to Bologna.[54]

Physicians and medical practice

The protracted disputes were seen by contemporaries to lower the physician's professional repute, but this did not seem to affect the numbers of people who opted for medicine as a career. Despite its inferior standing with regard to the legal profession, physicians still claimed that their profession was compatible with nobility. Yet the day-to-day practice of medicine was often far removed from the ideals referred to above. I have discussed College physicians, many of whom did not actually practise, and university physicians, many of whom did not actually teach. What about the great mass of physicians? Even within these ranks there were variations, according to their clienteles or the areas where they practised. Clearly there was a great difference between a city physician with patients drawn from the nobility and the community physician or *condotto* of a small town or village. But in both cases there was a widespread dependency of practitioners on clients of one form or another, which outweighed collegial bonds between practitioners.

The presence of power structures, from the university to the court, meant that state capitals attracted disproportionate numbers of physicians. The fame of Bologna as a centre of learning meant that there were sixty-three licensed physicians in 1659, for a population of just over 60,000.[55] And Rome, as both a religious and secular capital, had 140 physicians for its 120,000 inhabitants in 1656.[56] By their very nature, court positions were prestigious but insecure. One of the most sought after was that of papal archiater, the pope's chief physician, both for the esteem the appointment brought and the chance to share in the intellectual and cultural life at court. Occasionally a physician was fortunate enough to reach this position

[54] Adelmann, *Embryology*, I, 212-213 and 269 ff.

[55] "Catalogo de' soggetti, i quali ponno di presente pratticare la Professione di Medicina in Bologna, ordinato l'Anno 1659 nel mese di Giugno", A.S.B., *Studio*, 235.

[56] Cipolla, "Medical profession", *op. cit.*, 82.

when his patron was elected pope.[57] More often, physicians were called to the court because of their established reputations. In Malpighi's case, both factors had a role to play. When Antonio Pignatelli was elected pope in 1691 as Innocent XII he appointed the already ailing Malpighi as archiater. Malpighi was then at the height of his fame, but he had also attended Pignatelli between 1684 and 1687 when the latter was cardinal legate in Bologna.[58]

Moving to more common cases, we find that out of necessity, if not desire, many physicians returned to their towns of origin after receiving their doctorates. In the part of the Tuscan Grand Duchy studied by Cipolla, twenty-three physicians – out of the fifty-two whose birthplaces could be determined – practised in the small centres where they were born, and another fourteen practised in communities within thirty kilometres of their place of birth. Of those practising in the larger towns of Pisa, Pistoia and Arezzo, nineteen of the twenty physicians whose birthplaces can be determined practised in their native city.[59] This model probably holds throughout the peninsula, given the forms of clientelism then available upon which a physician might build a career. Where possible, graduate physicians took up some sort of permanent engagement (*obbligo fermo*) as a basis for private practice. This consisted of a contract to serve a person or community of people – a household, hospital or religious community – in return for steady remuneration. Many served the last group: it was not unusual for one-third to one-half of physicians to be retained by convents and monasteries.

Another form of arrangement, especially away from the larger cities, was that of community physician (*medico condotto*). One of Malpighi's most distinguished students, Antonio Vallisneri, was *medico condotto* first at Luzzara and later at Castelnuovo di Sotto. Towns and villages took the decision to hire a community physician very seriously. Though it represented an expensive undertaking for the town budget, it was deemed necessary in order to ensure medical services. The arrangement ensured a high medical provision throughout Italy, rural areas included.[60] But whom

[57] RICHARD PALMER, "Medicine at the papal court in the sixteenth century", in V. NUTTON (ed.), *Medicine at the courts of Europe, 1500-1837*, London, 1990, 49-78, at 59.

[58] ADELMANN, *Embryology*, I, 609-611.

[59] CIPOLLA, "Medical profession", *op. cit.*, 97-99.

[60] The model for this has been Cipolla's study of parts of Tuscany, where just over half of the physicians in rural areas were found to be on the public payroll as *condotti* in 1630. CIPOLLA, *ibid.*, 92. For Sicily, see MAURICE AYMARD, "Epidémies et médecines en Sicile à l'époque moderne", *Annales Cisalpines d'Histoire Sociale*, 4, 1973, 9-37, at 33; and for the Pisan countryside not studied by Cipolla, see DANIELA PESCIATINI, "Maestri, medici, cerusici nelle comunità rurali pisane nel XVII secolo", in *Scienze, credenze occulte, livelli di cultura*, Florence, 1982, 121-145, at 130.

did the *condotti* serve? Contracts varied from place to place and through time, but they usually stipulated that the physician was to reside in the community and treat the poor gratis. The community's size and wealth would affect the conditions and salary. Larger centres might offer the physician a higher, all-inclusive salary, obliging him to treat everyone gratis, while the smaller centres might offer a lower salary, which the physician could then top up by charging the rich for his services by the day. The decision to salary a community physician was justified with reference to necessary charity for the community's needy poor. Yet it is unlikely that the *condotti* had much to do with the poor. First of all, in cultural terms, the physician was associated with the local well-to-do. They would have been the ones to request his services most often. Most people – and this is the second point – would have been unable to afford the remedies he prescribed, even if the visit itself came free of charge and even if suitably "inferior" remedies were recommended for the more rustic constitutions of the poor.[61] A third factor contributed to the restricted nature of the community physician's clientele. In a medically pluralistic society there were also cultural barriers, however permeable, which favoured the choice of a traditional, popular, easily available form of treatment over a barely accessible learned one. During an epidemic of fever, a physican in rural Tuscany noted that "the peasants treat themselves and hardly ever consult the doctor, either because they are too poor to pay for the treatment or because they have little faith in medicine, as is usual among country people".[62] If this was so, it was in part because they possessed alternatives.

Whilst the official rhetoric sought to keep physic and surgery apart, local realities meant that physicians were sometimes forced to performs acts of surgery when there was no surgeon available. A physician's willingness to do so could come down to a personal question of how secure he felt about his own status and reputation. For a community physician occasional surgical acts might be performed as acts of charity, but not on a permanent

[61] On the *medicina pauperum*, see PIERO CAMPORESI, *Bread of dreams: food and fantasy in early modern Europe*, trans. D. Gentilcore, Cambridge, 1989, 103-104 and 112-114.

[62] ARCHIVIO DI STATO, Florence, *Sanità: Negozi*, 136, fol. 386; cit. in CARLO CIPOLLA, *Miasmas and disease: public health and the environment in the pre-industrial age*, New Haven, 1992, 34.

basis or when forced to do so. For this reason – one example amongst many – the community physician of Loro, in the Papal States, identified as "very improper and horrid for me" the fact that he was obliged to perform surgical tasks by the town's lieutenant, after the local surgeon had been forced to resign (ironically, for practising physic).[63]

There were circumstances, however, in which physicians would quite routinely perform surgery. If a physician's wealthy patron expected such services from him on occasion then he had little choice by to give in, if he valued the patron's continued support. Physicians may also have performed such services for one another. Finally, a more liberal attitude towards professional boundaries was to be found within the academic environment. The universities recognised two types of medic, the *medico fisico* and the *medico chirurgo*. As a result, some university physicians lectured on surgery, as well as practising it, without diminishing their status. No stigma was attached to such "scholarly manual work".[64] The breaking down of boundaries between physic and surgery was partially due to the rise of anatomy. In the wake of Andreas Vesalius' *De humani corporis fabrica* of 1543 anatomy had become part of learned medicine. Malpighi's expertise in carrying out dissections was part of an established tradition, which extended into the conducting of post-mortems of high-status people.[65] Physicians of Malpighi's time do not seem to have been reluctant to carry out post-mortems with their own hands. Thus when the Modenese *protomedico* Alberto Ferrarini died in 1689, his post-mortem was carried out by none other than the Modenese physician Bernardino Ramazzini (later famous for his work on occupational diseases). Ramazzini, who had been treating the *protomedico* and writing to Malpighi about the treatment, told Malpighi about the findings of the post-mortem. Malpighi responded with comments about his own observations during post-mortems he had undertaken.[66] Indeed Malpighi's own post-mortem was carried out by Giorgio Ba-

63 A.S.R., *Università*, 62, fols. 245 and 889.

64 Malcolm Nicolson, "Giovanni Battista Morgagni and the eighteenth-century physical examination", in C. Lawrence (ed.), *Medical theory, surgical practice: studies in the history of surgery*, London, 1992, 101-134, at 124.

65 The tradition leads directly to Giovanni Battista Morgagni, for whom autopsies were not ends in themselves, but were also undertaken to improve the understanding of actual disease. *Ibid.*, 102.

66 Letters of 5 and 11 November 1689, in Giuseppe Plessi and Raffaele Bernabeo (eds), *Consulti di Marcello Malpighi, 1675-1694*, Bologna, 1988-92, i, 192-194. My preliminary survey of his consultations did not reveal whether Malpighi himself practised surgery on occasion. Perhaps this is not surprising, given their nature: responses to written enquiries from other physicians and from sick people regarding diagnosis and treatment. In them, Malpighi is not overly generous with accounts of his own activities and practices.

glivi, in the church of SS. Vincenzo ed Anastasio in Rome, with Giovanni Maria Lancisi in attendance.[67]

In this sort of academic environment, with dissections playing an increasingly important role in the construction of medical knowledge, university physicians seem to have been quite willing to perform surgery on one another. An example of this comes from two of Malpighi's colleagues at Bologna, both lecturers and both occasionally present at his post-mortem dissections: the physicians Giovanni Battista Capponi and Roberto Muratori. In a letter to Malpighi in 1663, Capponi expressed his amazement at finding a small piece of cloth in a tumour which had been cut open by Muratori. Muratori had left the cloth in Capponi's wound, "either inadvertently or by design", and it had travelled from his back through to his chest, forming another tumour there, and the cloth was discovered when this second tumour was incised. It was apparently quite normal that someone like Muratori should perform such humble acts of surgery, albeit on a colleague.[68]

Surgical Divisions

The real divide did not exist between university-educated physicians and surgeons,[69] but between this medical elite and the larger mass of barber-surgeons. According to contemporary observers, there was a world of difference between the barber-surgeon grudgingly licensed to perform the simplest surgical acts and the hospital-trained, often university-educated, surgeon. Of barber-surgeons Garzoni wrote: "they generally prattle like magpies ... [T]o tell a barber a secret is like telling it to a Levantine Jew, because the example of King Midas' barber, who revealed that the king

67 Adelmann, *Embryology*, I, 659. The church of SS. Vincenzo ed Anastasio, built in 1650, is the parish church of the Quirinal Palace, where Malpighi had his quarters.

68 Capponi to Malpighi, Bologna 18 April 1663, *MCA*, I, 161-163. Both Capponi and Muratori were present at an undated post-mortem dissection undertaken by Malpighi, held sometime between August 1666 and March 1667. MS. 2085/XII, Biblioteca Universitaria, Bologna, fol. 38r.; published in *MOB*, 416.

69 See Vivian Nutton, "Humanist surgery", in A. Wear, R. K. French, I. M. Lonie (eds), *The medical renaissance of the sixteenth century*, Cambridge, 1985, 75-99.

had ears like an ass, tells us everything".[70] Garzoni makes no such remarks at the surgeons' expense. Indeed, he considered their office of great importance: "to separate what, in bodies, is united, to unite what is divided, to draw out the superfluous, to preserve without pain and to prevent putrefaction".[71] While the lowest barber-surgeon overlapped with the charlatan in terms of his preparation, practice and status, the graduate surgeon, or *medico chirurgo*, overlapped with the physician. There were chairs in anatomy and surgery at most Italian universities. At Naples it was quite prestigious: one of those who held it, Marco Aurelio Severino, surgeon at the city's Incurabili Hospital, numbered the founders of the Accademia degli Investiganti amongst his disciples.[72] Indeed Severino was a victim of the very 1656 plague he was assigned to study, as head of a group of physicians appointed to the task.[73] Venice even had its own College of Surgeons, distinct from the barbers' guild (and from the College of Physicians, it must be said).[74] During the eighteenth century surgeons throughout the peninsula would press for their guilds to be awarded the status of colleges.

The medical authorities divided the surgical profession into two, even three categories. Each was permitted only certain surgical operations. In Naples, the office of the *protomedico* distinguished between non-graduate surgeons, who were to be examined on "head wounds, nerve punctures and other things necessary for the setting of bones", and barbers, who were to be examined on the location of veins and the techniques of blood-letting.[75] In Bologna, however, surgeons were subdivided into three categories of competence. These varied from those licensed only to let blood, those who could let blood and treat simple wounds, and those who practised all surgical acts. Licensing combined restriction and recognition: it sought to limit practice to a corresponding level of skill and experience, while at the same time granting a specific, officially-santioned sta-

[70] GARZONI, Piazza universale, *op. cit.*, 369*v*-370*r*.

[71] *Ibid.*, 50*v*.

[72] FISCH, "Academy", *op. cit.*, 522; MUSI, "Medici e istituzioni", *op. cit.*, 40-41.

[73] PIETRO CAPPARONI, *Profili bio-bibliografici dei medici e naturalisti celebri italiani dal sec. XV al sec. XVIII*, Rome, 1928, vol. II, 66.

[74] RICHARD PALMER, "Physicians and surgeons in sixteenth-century Venice", *Medical History*, 23, 1979, 451-60.

[75] "Istruzioni al medico...", pragmatic VII, LORENZO GIUSTINIANI (ed.), *Nuova collezione delle prammatiche del Regno di Napoli*, Naples, 1805, XII, 211-212 and 214.

tus to the practitioner. This was important in a world where individuals without identity were suspect.[76]

In order to be licensed, barber-surgeons were to undergo examinations, according to their category of expertise. Some criminal accusations resulted when barber-surgeons practised with just the recognition of their guild, without the now (as of the seventeenth century) necessary supplementary licensing by the Medical College or *Protomedicato*. In some cases the guilty barber-surgeons pleaded ignorance of the need for a dual licence.[77] Many more refused to undergo this trial, either because they sought to evade the licence fee, or because they lacked the training or experience necessary to be approved. And for those lacking even guild recognition it meant swelling the ranks of illicit itinerant practitioners. Many of those classed as charlatans and mountebanks by the medical authorities, and ridiculed by the medical elites, were in fact practitioners of rudimentary forms of surgery. Differences in actual practice were relative, and where a surgeon could conclude his learned surgical treatise by remarking that he had a quick and painless cure for the French pox – advising those who were interested to consult his next work and promising satisfaction – there was no difference at all.[78]

In any case, the sick did not make the clear distinctions between the different ranks of the healing arts that the Medical Colleges were seeking to impose. For Mercurio the temptation to "play the doctor" was partially the fault of the "rabble", who persisted in calling every licensed barber-surgeon "Signor Dottore"; and the barber-surgeons, "lulled by this continuous sing-song, easily come to believe it". Apparently, this was especially the case with community surgeons. The problem, and the resulting temptation for surgeons, was exacerbated by the fact that, in Padua for example, "a few doctors of medicine treat surgical cases", as well as practising physic, so the barber-surgeon "assumes that he too may practise both arts".[79] The latter became a real concern of the Medical Colleges during the seventeenth century and the early part of the eighteenth.

[76] PELLING, "Medical practice", *op. cit.*, 110-111 and 113.

[77] FAUSTO GAROFALO, "I barbieri chirurgi in Roma", in *Collezione C dell'Istituto di storia della medicina di Roma*, Rome, 1949, 2-31, at 19.

[78] As advertised by the *medico chirurgo* FEDERICO ZERENGHI da Narni, in his *Breve compendio di cirugia ... opera vitale e necessaria ad ogni professore dell'arte, e massime a' principianti*, Naples, 1603, 52.

[79] MERCURIO, *Errori popolari*, *op. cit.*, 208 and 210.

The surgeon with a smattering of university instruction could earn a decent living, following a career that paralleled the physician's, beginning with a civic position. The community surgeon's contractual arrangement was similar to that of the physician, though there are cases of the role being passed from father to son, with the town's approval (something that does not seem to have happened with community physicians).[80] Community surgeons were paid substantially less than their physician counterparts, as befitted their inferior status. The community physician's salary could be as much as four to five times higher than that of the surgeon's.[81]

Not all community surgeons were university educated. In fact most of the wide range of practitioners engaged in some aspect of the surgical arts were trained through apprenticeship. Surgical writers made experience and practice into a virtue. The Neapolitan Cintio D'Amato, in a treatise dedicated to Carlo Pignataro, recommended that barbers seek engagements "either in hospitals, or in the infirmaries of convents and monasteries, or in other public places, so that they always have before them the chance to see, procure and practise their art". Other virtues in a barber were good eyesight, steady hands and a perfect sense of touch.[82] The benefits of experience over theoretical learning were recognised by Malpighi. In a dialogue he was preparing in 1659 on the theory of purgation, Malpighi granted authority to the expertise of an illiterate barber, allowing him to better a Galenic physician in the debate. Borelli's reaction to the dialogue was to urge Malpighi to tone down his criticism of the Galenic traditionalists and his overt praise of surgeons.[83]

In poorer or more isolated towns and villages the community barber-surgeon was often the only licensed practitioner. D'Amato noted that "the diligent barber is almost a general instrument of all treatments, since in the walled towns and villages, where it is rare to find learned physicians, [the barber], with the habit that his art requires, assists in every difficulty and treats every malady that occurs in diseased bodies".[84] Even where there was a choice, the barber-surgeon's services were much more widely accessible than those of the physician. In emergencies they were as important as the physicians. Treatises asserted that they should have at least some of the knowledge of physicians. A Neapolitan treatise published in 1626 which sought to unify the various ranks of surgeons, given that even the most famous surgeons had been known to let blood like barbers, proposed that even barbers should know more physic. Writing in a rather pompous style, contrasting with D'Amato's lively tone, Tiberio Malfi denied that a barber would become a physician thereby, "because if that were true, a physician and not a barber would he be". His intent was not to upset the established order. But since a barber routinely has "to treat medically, it is necessary for him to have knowledge of and familiarity with the remedies which he will need to use, according to the application". This basic knowledge would protect him from charges of inability should the patient suffer as a result of his medication.[85]

There is no doubting the pressures on barber-surgeons to practise physic on occasion. To practise their profession canonically, barber-surgeons could only intervene on a physician's orders, not at the sick person's behest. Much of their daily practice, however, would have been based on interventions requested directly by the sick themselves, on the basis of self-diagnosis. The role of the barber-surgeon in treating the mass of sick people represented something of a link between learned and popular medical practice. A not infrequent statement made against a barber-surgeon when incriminated for a variety of reasons is that "he goes about treating all those who call him".[86] In 1659 a barber-surgeon of Forlì defended his actions in treating a woman's face wound, even though he lacked the authority to do so. He treated her, he said, "because she came to me and entreated me, and because she said that no one else had wanted to treat her", and so "at the patient's behest [I] was induced to treat her".[87] He admitted to performing several similar operations out of necessity, telling the patients he was unauthorised to do so, but they insisted on the operation regardless. The barber-surgeon was placed between two stools: on the one hand, he had to respond to his clientele, upon whom his livelihood depended,

[80] Pesciatini, "Maestri", *op. cit.*, 124-125.

[81] Cipolla, "Medical profession", *op. cit.*, 91; Pesciatini, "Maestri", *op. cit.*, 127.

[82] Cintio D'Amato, *Nuova et utilissima prattica di tutto quello ch'al diligente barbiero s'appartiene*, Naples, 1671 edn., 11 and 13. The treatise was first published in 1639.

[83] Borelli to Malpighi, Pisa, 7 November 1659, *MCA*, I, 21-22.

[84] D'Amato, *Nuova prattica*, *op. cit.*, 114.

[85] Tiberio Malfi, *Il barbiere di Tiberio Malfi da Monte Sarchio barbiere e consule dell'arte di Napoli*, Naples, 1626, 56.

[86] From a 1722 accusation against the unlicensed surgeon Francesco Antonini, A.S.R., *Università*, 2, XVI bis.

[87] "Processo del vice protomedico contro un chirurgo [Giuliano Magaluffi]", A.S.R., *Università*, 2, fols. 406-423.

and, on the other, there was pressure from the medical elite to follow the rules and respect the boundaries of his profession.

Worse than practising surgery without the physician's instructions, was the actual practice of physic, primarily the administering of "oral" or internal remedies. In 1670 a Pisan barber-surgeon resident in Bologna, Gianbattista Terrarossa, openly admitted to giving patients pills and other internal remedies.[88] His excuse, he told the Bolognese *Protomedicato*, was that he had always practised under a certain Dr Muratori – most likely the Roberto Muratori encountered above. He recounted several treatments. One patient of his told him that she had taken so many medicines for her incessant cough, prescribed by a Dr Franchini, that "she said she had an apothecary's shop in her body". Terrarossa treated her with various unguents, accompanied by a decoction of *oro potabile* acquired from "a certain Antonio", and diaphoritic antimonium used as a purgative. He was forced to give up the cure because "some envious rival" spoke badly of him to the patient. Despite residing in Bologna, Terrarossa was quite a wanderer, treating people as far away as Modena and Ferrara, and obtaining his plasters and unguents at "the Grand Duke's foundry in Pisa". He supplemented his income by copying written documents, and his wife and a servant washed silk. In fact, only a licence to practise surgery lay between him and the many illicit itinerant practitioners labelled "charlatans" or "empirics". At the same time it should be noted that for many practitioners medicine was not the full-time, autonomous activity considered essential to the characterisation of modern medicine as a profession.[89]

Terrarossa was punished for two interrelated offences. The first, for giving internal medicines. As one marginal comment put it: "*id non est opus chirurgi*" (this is not the task of a surgeon). Another gloss remarked "*quae rapina!*" (what robbery!) alongside the barber-surgeon's account of the lengthy and expensive treatment he had given a nun. This was the second, and more damning, offence as far as the *Protomedicato* was concerned. The sentence might have been a light fine had he treated his patients gratis, as illicit practitioners of all sorts claimed to have done in order to gain a tribunal's sympathy (charging only for the medicine's cost). As it

[88] "Risposta di Gianbattista Terrarossa", 7 August 1670, A.S.B., *Studio*, 213, no. 18.

[89] MARGARET PELLING, "Medical practice in early modern England: trade or profession?", in W. PREST (ed.), *The professions in early modern England*, London, 1987, 90-128, at 99.

was, the fees he set far exceeded the just recompense which was to be based on factors like the practitioner's rank, the type of disease being treated and the economic conditions and social status of the patient. The *Protomedicato* deprived him of his licence "for the public good violated by him with frauds and extortions and intolerable prevarications to treat medically". What is also noteworthy about this case is the way Terrarossa requested payment from his patients – which they willingly gave – at various stages of the treatment, and not following a successful outcome, as one might have expected. In fact, the latter was the traditional method of payment, derived from ideas of a moral order, which resist the idea that medical treatment should be mediated first and foremost by monetary considerations. But, apparently, the commercialisation of medical practice was already proceeding apace. Beginning in the second half of the sixteenth century regular practitioners were encouraged, even obliged, by the medical authorities to take payment visit by visit, not waiting for the end result.[90]

APOTHECARIES AND THE "SHOOTS OF ENVY"

If the temptation for barber-surgeons to practise physic was great, especially in extenuating circumstances, it was only slightly less so for apothecaries. Given the first-hand knowledge of drugs they acquired both through apprenticeship and the filling out of prescriptions for physicians, it is no wonder they dispensed drugs themselves on occasion, without a doctor's intervention. As far as the sick were concerned, this form of illicit practice was unlikely to present a problem. Indeed, apothecaries were probably responding to the requests of the sick when they turned to physic, just as barber-surgeons did. "An apothecary is held in higher repute by the people than a physician", wrote the Dominican apothecary Fra Donato D'Eremita. "A sick person", he continued, "while not believing ten of the most important physicians, is not suspicious of the work of a single apothecary, at times poor, vile, corrupt and ignorant".[91] It was commonly noted of an apothecary that "he dispenses drugs to whomever asks him for

[90] GIOVANNI FILIPPO INGRASSIA, *Constitutiones, capitula, iurisdictiones, ac pandectae regii protomedicatus officii*, Palermo, 1657, 82-83.

[91] FRA DONATO D'EREMITA, *Antidotario ... nel quale si discorre in torno all'osservanza che deve tenere lo spetiale*, Naples, 1639, 4.

them".[92] However, if a death resulted and criminal accusations were made against the apothecary, it was the sort of evidence that would be brought out to incriminate the accused still further. It was usually the physician of the town who made any accusation before the medical authorities. In 1711 the physician in the town of Corneto in the Papal States denounced the apothecary Desiderio Bernardelli for fixing prices and dispensing medicines without a prescription, resulting in a woman's death. In his defence, Bernardelli wrote to the *protomedico*, saying that he was well loved for the quality of his medicines. He admitted that, especially in the case of repeat precriptions, he did not wait for the physician's order but dispensed himself. He believed that this was also normal practice in Rome. Bernardelli concluded by noting that "above all, it seems that some shoots of envy, sister of persecution, always spring up between practitioners". The *protomedico*'s deputy seemed to agree. He found Bernardelli guilty of dispensing medicines of his own accord, but decided that the charges of price fixing and causing death were "a mere and evil imposture".[93] If the moral order was threatened by the apothecary's actions, it was only the physician who seemed really concerned, to the extent of making false accusations to bolster the case against his rival. As has been found elsewhere, the *Protomedicati* do not seem to favour their own in cases involving physicians in some way.[94]

Some apothecaries gained important positions in society, the medical hierarchy notwithstanding. One example is the Messinese Lorenzo de Tomasi, one of the first people who received Malpighi upon his arrival at Messina. Malphighi described de Tomasi as a "most astute man", praising his knowledge of chemistry and mathematics, and was not in the least surprised that de Tomasi should practise physic in the city.[95] After the Messina revolt of 1674-8, in which he was involved, de Tomasi went to Rome, where he was referred to as practising physic for cardinals and other important people "to much applause".[96]

[92] For an example, see "Processo fatto a Ludovico Montani speziale di Arrone", 15 September 1703, A.S.R., *Università*, 2, XII.

[93] "Ricorso fatto contro Desiderio Bernardelli speziale", 31 March 1711, A.S.R., *Università*, 62, fols. 1222 and 1240.

[94] POMATA, *Promessa*, *op. cit.*, 215.

[95] See Malpighi's letter to Silvestro Buonfiglioli, Bologna 11 March 1671, *MCA*, II, 562.

[96] Letter of the Jesuit Carlo Balsamo, Messina 20 June 1681, in ROSARIO MOSCHEO, *Francesco Maurolico tra Rinascimento e scienza galileiana. Materiali e ricerche*, Messina, 1988, 448.

Several Italian writers praised the apothecaries' knowledge. Garzoni, for example, praised the apothecaries for their medicinal expertise. They "sometimes amaze the physicians themselves, even though [physicians] are generally contrary and opposed to this type of practitioner".[97] It is true that apothecaries had benefited from, and often participated in, the search for drugs, new and old, that had begun in the sixteenth century.[98] Mercurio commented in his book devoted to "popular errors", that a "good apothecary" was more important for a community than a "good physician". "This is the case", he wrote, "because the experienced apothecary can often correct the error of the ignorant physician, due to the great experience he has both of the nature of the medicines and their doses". But there is an important qualification to Mercurio's praise. A bad apothecary, "miserly and negligent", may ruin the medicines ordered by a learned physician. In the cities the good apothecaries will make up for the single bad one; but in a small town one is in the hands of the only apothecary. From this follows Mercurio's fervent support of the *Protomedicati*, especially that of Bologna, because they inspect the apothecaries on an annual basis. While community physician in the town of Lonato, near Brescia, Mercurio himself instituted a similar procedure. "Although it cost me much effort and made me hateful to the apothecaries", he remarked, "nevertheless I wanted to do it to ease my conscience and because I saw how useful and necessary it was for my patients".[99]

Apothecaries, however much they were appreciated and needed, were reminded to keep their place. Francesco Sirena, in his 1678 guide to the profession, pointed out that treatises like his should be written in the vernacular. This was because "speaking in a polished and elegant way is necessary in a virtuous academician, but not in an apothecary, for whom speaking poorly is of little importance as long as he practises well". Humility, simplicity and piety were the crucial traits. The apothecary did not need to know how to measure time into minutes or half and quarter-minutes for the preparation of medicines; more reliable and better known to him would be the different lengths of an Ave Maria, Credo or Gloria.[100]

[97] GARZONI, *Piazza universale*, *op. cit.*, 84.

[98] RICHARD PALMER, "Pharmacy in the republic of Venice in the sixteenth century", in WEAR, FRENCH, LONIE, *Medical renaissance*, *op. cit.*, 100-117.

[99] MERCURIO, *Errori popolari*, *op. cit.*, 172.

[100] FRANCESCO SIRENA, *L'arte dello spetiale*, Pavia, 1678, preface; cit. in G. PANSERI, "La nascita della polizia medica: l'organizzazione sanitaria nei vari Stati italiani", in GIANNI MICHELI (ed.), *Storia d'Italia. Annali 3*, Turin, Einaudi, 1980, 157-196 on 180.

The Neapolitan *protomedico* Santorelli, however, seemed to assume a slightly higher standing for the apothecary, though the professional boundaries remained equally fixed. In addition to being of good reputation, the apothecary was to have adequate means to practise his profession, which meant possessing at least 500 ducats' worth of goods – this was more than a farm hand or manual labourer could expect to earn over several decades.[101] He should know enough Latin to understand the canons of Mesuë, but even this was not absolutely crucial, since most of what an apothecary should know had been published in Italian, and much could be gained with experience.[102] Guild statutes also specified that an apothecary had to have been resident in the city for a given period, such as ten years, and have trained with a recognised apothecary, before he could be examined and admitted to the guild and allowed to practise.[103] But, as we have seen, guild acceptance was only one level of recognition. The final say was up to the Medical College or *Protomedicato*.

Their main business, in fact, was apothecaries. Financial interests coincided with the desire to uphold the moral order. The inspections of apothecaries' shops – to ensure they had the drugs listed in the official pharmacopoeias, in the proper condition and at the proper price – were important sources of income for the medical authorities. Penalties for fraud could even extend to confiscation of the entire shop, one-third of the proceeds going to the accusor. It is no surprise, then, that one unlicensed apothecary left a message "that he wasn't at home, that he had nothing to do with *protomedici*, and didn't want to receive visits".[104] He was typical in having inherited the shop from a relative, in this case his father, and wanted to continue trading for the income it brought in.

At the same time the somewhat artificial divisions of pharmacy, like those for surgery, made life difficult for the Medical Colleges. The activities of grocers overlapped with those of apothecaries and much legislation was needed in the effort to keep them apart. The problem lay in the fact that they were both similar and different. Grocers traded in many of the same goods as apothecaries and often supplied them. As the Roman *protomedico*

101 Nino Leone, *La vita quotidiana ai tempi di Masaniello*, Milan, 1994, 10.

102 Santorelli, *Protomedico*, *op. cit.*, 59-61.

103 *Statuti...delli spetiali*, *op. cit.*, 21 and 31.

104 "Processo fatto a Ludovico Montani speziale di Arrone", 15 September 1703, A.S.R., *Università*, 2, XII, fol. 9.

Garzoni argued in his complaint, the grocers should not be permitted to function as apothecaries. It was illicit as well as infringing on the status of apothecaries. In 1581 the *Protomedico* of Naples, Prospero Bove, odered that grocers were henceforth to be inspected like apothecaries because they sold poisonous drugs. They were not to prepare or stock "medicinal compounds", the sole province of apothecaries, but only "simples".[105] The apothecaries were happy, because the inferior grocers were kept in check; the *Protomedicato* was happy because it gained a whole new source of licensing revenue. The only people not happy were the grocers themselves. They had enough clout with the kingdom's highest body, the Collateral Council, to have the edict overturned twenty-three years later.[106]

Charlatans and Midwives

Arguably the greatest threat to the moral order of medicine came from those who were outside it, at least according to the official rhetoric. Yet it should have been relatively straightforward for the Medical Colleges to exercise authority over both charlatans and midwives, since they had no other bodies to represent them. In practice, charlatans tended to be evasive by their very nature, and often escaped licensing. If itinerant practitioners stuck to the licensed selling of drugs or minor surgery, then they were tolerated by the authorities, despite the harsh and satirical medical rhetoric of the time. The Colleges of Physicians took a realistic stance regarding charlatanry: they never sought to eliminate it, merely to contain it within what they considered proper limits.[107] And as we have seen with regard to barber-surgeons, licensing should not be seen merely as a restrictive phenomenon. It also bestowed a form of official recognition on the charlatan which he could use to his advantage.

Charlatans were potentially an even greater threat to medicine's moral order than apothecaries or barber-surgeons because of the sheer numbers who boasted of practising physic better than the physicians themselves. For

105 Giustiniani, *Nuova collezione*, *op. cit.*, XII, 202-206.

106 See discussion in David Gentilcore, " 'All that pertains to medicine': *protomedici* and *protomedicati* in early modern Italy", *Medical History*, 38, 1994, 121-142, at 137.

107 David Gentilcore, " 'Charlatans, mountebanks and other similar people': the role and regulation of itinerant practitioners in early modern Italy", *Social History*, xx, 1995, 297-314.

Mercurio it was not simply the remedies they used, but the way they used them. Charlatans wanted "to heal their patients right away and acquire quick praises from them", whereas physicians awaited "the motions of nature", attempting to bring about a purgation "by means of reasonable remedies in a suitable time".[108] Charlatans met with much revulsion from learned physicians precisely because they straddled the boundaries which separated the medical community. Their use of spectacle and performance to sell their remedies was a sign of their liminality. The medical elites struggled, in vain, to keep the theatrical and commercial side of the selling of drugs separate from the medical aspects of diagnosis and treatment. Charlatans frequently called their remedies "secrets", because they worked through unknown means, seeking to distinguish them from ordinary simple and compound remedies then available.[109] But, in fact, their "secrets" did not differ substantially from the drugs listed in the official pharmacopoeias, and the medical authorities knew this. Hence Garzonio's criticism in his complaint that charlatans could not be examined like apothecaries. The actual content of the drugs they sold may not have corresponded to what they petitioned the Medical Colleges to be licensed to sell. Garzonio singled out electuaries against poison, which charlatans had begun selling "in the past few years" (his complaint dates from 1619). Garzonio was doubtless thinking of one charlatan in particular: the self-styled "Orvietan", the Neapolitan Girolamo Ferranti. The anti-poison electuary that Ferranti sold, called orvietan, was based on theriac, listed in the official pharmacopoeia. Unhampered by the medical authorities, Ferranti and his sons peddled their orvietan first thoughout Italy, then France and England, where it met with much success, as well as imitation. At the same time, as if to spite Garzonio, the Ferrantis had opened up a shop, identified by a large sign, at their home in Rome, from which they dispensed the electuary.[110]

When charlatans exceeded their limits in practising surgery or, even worse, physic, they were accused of mixing pretension with ignorance. Their offence lay in boastfully doing what they were not capable of doing, because – the physicians argued – they lacked the necessary training or

[108] MERCURIO, *Errori popolari*, *op. cit.*, 206.

[109] See WILLIAM EAMON, *Science and the secrets of nature: books of secrets in medieval and early modern culture*, Princeton, 1994, 234-266.

[110] A.S.R., *Università*, 58, XXXI, fol. 175.

education. Malpighi seems to have been relatively tolerant of them, perhaps because of his positive attitude towards observation and experience (as we saw with regard to surgical knowledge). However, it is not always clear when he is referring to university medical "empiricists" like Giovanni Gerolamo Sbaraglia, and when he is referring to itinerant practitioners, either of whom could be called *empirici*. In Malpighi's accounts of the numerous post-mortem dissections he carried out to determine the causes and products of diseases, he records the medical interventions of empirics on several occasions. These accounts have three features in common: they concern well-placed Bolognese citizens, such as a cardinal and a marchioness, who die after suffering from a disease for many years, and who receive their last medical treatment from an empiric. Although the illustrious patients all die after having been treated by empirics, Malpighi does not blame the empirics in any way for having caused their deaths. The treatments they provide are simply one of many possible, which prove ineffective in altering the course of the disease.[111]

However, the offence of a woman practising surgery or physic was another question, since women were prohibited from treating the sick in any way. Whatever women might have been allowed in the past – records exist of women licensed to practise physic and surgery during the Middle Ages[112] – only midwifery was legally open to them by Malpighi's time. But even midwives were prohibited from administering internal medicines, letting blood or using surgical instruments of any sort, however useful these might have been.[113] This flew in the face of ancient practice, whereby midwives cared for various aspects related to female sexuality. Nevertheless, beyond the collecting of licence fees from midwives, Italian medical elites were not yet very concerned with childbirth; this development was to take place in the latter half of the eighteenth century. Recognition of midwives was left up to the parish priest. It was only in 1682, for example, that the Bolognese *Protomedicato* set about counting the city's

[111] *MOB*, 430, 436, 443. The problem of ambiguity remains, but it seems likely that had the *empirici* been practical physicians like Sbaraglia, and not itinerant practitioners, Malpighi would have mentioned them by name.

[112] For licensed women practitioners, see RAFFAELE CALVANICO, *Fonti per la storia della medicina e della chirurgia per il regno di Napoli nel periodo angioino (1273-1410)*, Naples, 1962.

[113] NADIA MARIA FILIPPINI, "The Church, the State and childbirth: the midwife in Italy during the eighteenth century", in HILARY MARLAND (ed.), *The art of midwifery: early modern midwives in Europe*, London, 1993, 152-175, at 163-164.

midwives.[114] Until the eighteenth century learned medical attention to childbirth in Italy remained largely theoretical; the actual practice was left to women. The medical community regarded midwifery as degrading, vaginal blood being the most impure. The real concern was to keep midwives away from physic and surgery. Garzonio complained that worse than practising the art of midwifery without a licence was the fact that many licensed midwives performed "all manner of cures". As far as Mercurio was concerned, most of the medical "errors" were made by women, "who presume too much in medicine". The problem was that of forcing them to abandon such pretence, so that "they learn to practise that [profession] which is commanded by expert physicians, and do not seek to meddle in a profession so unbecoming their own estate".[115]

However, actual conditions, especially in rural areas, meant that there was some leeway, at least for the woman healer licensed as a midwife. A clear distinction must be made between unlicensed women healers and wise women, on the one hand, and officially recognised midwives on the other.[116] Thus in the case of women healers, the *Protomedicati* could be lenient if certain conditions were met: if she was a licensed midwife, or prepared to undergo licensing; if she treated the sick gratis, in good faith and at their behest; if there were no other licensed practitioners in the vicinity; and if she had caused no one any harm. When the midwife of Cerreto, in the Papal States, Donna Caterina Pachino, was accused in 1711, the whole town rallied to her defence.[117] Not unlike other community practitioners such as the *condotti*, Pachino had community sanction for her activities. A seventy-one-year-old parish priest declared that he had known her grandmother and two aunts, all midwives, who had helped "the sick in the ways requested by physicians and surgeons, as Caterina does, without a salary and without asking for payment". The *protomedico's* deputy was told that Pachino had assisted the town's surgeon for many years. He was now old and almost blind, and as there was no other surgeon, Pachino

[114] Entry of 10 September 1682, "Acta Protomedicatus Collegii Medicinae ab anno 1662 ad anno 1694", A.S.B., *Studio*, 320. The list itself is in *Studio*, 235.

[115] MERCURIO, *Errori popolari*, *op. cit.*, 1-2.

[116] A distinction not always maintained by historians, where "woman healer" and "midwife" are often used interchangeably. See MONICA GREEN's useful survey, "Women's medical practice and health care in medieval Europe", *Signs: Journal of Women in Culture and Society*, XIV, 1989, 434-473.

[117] "Ricorso fatto contro una donna la quale si esercitava in casi chirurgici", 13 March 1711, A.S.R., *Università*, 62, fols. 1647-54.

stepped in. Moreover, she admitted to performing acts of surgery, like opening tumours and applying ointments, when requested to do so by physicians from nearby towns (Cerreto had no physician of its own). This is suggestive of a kind of harmony, or at least a working arrangement, amongst the various branches of the medical arts, not usually evident in the records. Pachino also admitted to doing similar operations by popular demand: the populace – "quite numerous and ignorant", according to the deputy – had recognised her considerable experience. She took no money for these activities; while for her midwifery she accepted "presents of foodstuffs or household things offered to her". *Protomedico* Lancisi agreed to waive the twenty-five ducat fine, as his deputy suggested, provided Pachino avoided performing surgery in future. Lancisi's realism in the face of such circumstances is praiseworthy, but he must have known that, unless the town managed to attract another surgeon, the temptations to stray beyond the bounds of her profession were very great indeed.

CONCLUSION

By way of conclusion, I should like to make two points. First of all, as I have demonstrated in the preceding pages, the medical arts did not form one profession in Malpighi's Italy. In the terminology of the time, each was a "profession", in the sense of being an occupation. Of course, a clear hierarchical distinction was made between the manual or mechanical and the learned, but this was not implied by the use of the word "profession", which was not then restricted to prestigious occupations alone. And even this distinction existed more in the official rhetoric than in actual practice, as Garzonio's complaint has helped to show. What most distinguished the medical "regulars" – physicians, surgeons and apothecaries – from itinerant practitioners and midwives was the existence of formal occupational associations for the former, providing legal status and group identity. Tempting as it might be, it would be inaccurate to characterise the increasing supervisory role of the Colleges of Physicians and *Protomedicati* as professionalisation. The increasing regulation by the medical elites and attempts to enforce the hierarchical and occupational divisions of the healing arts was not an attempt to control the whole medical field. It was not going to pave the way for the unity of medical practice in its various forms. Nor was it in any way striving to constitute and control the medical market for the expertise of a reorganised and unified

profession.[118] Rather, it was directed at enforcing boundaries and bolstering the distinction, prestige and power of physicians as reflected in their own professional organisations. This was the general medical context in which Malpighi lived and worked and often struggled against.

And this leads me to a second and more general point, which is to stress the important contribution that intellectual and social history can make to one another. Too often the two disciplines have been kept apart by outmoded prejudices which served to minimalise what the other was up to. What is theory without practice, idea without implementation? Ideas do not have a history that is independent of the world of which they are an expression, nor did "great men" live in a historical vacuum. Malpighi was not simply a great anatomical innovator; he was also a product of his times. An understanding of these conditions enables us better to understand the context for his actions and appreciate the issues in which he was involved. Admittedly, I have only made occasional direct reference to Malpighi. But I believe that an exploration of the medical network and how it functioned, including what motivated medical practitioners to act as they did, in a way that Maplighi might have understood, can shed much light on particular events in his own life.

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[118] M. Ramsey, *Professional and popular medicine in France, 1770-1830*, Cambridge, 1988, 4-5.