
*The view of the body
of an ordinary surgeon*

Bernardo Calvo and his writings

The image of the early modern surgeon offered by the professional regulations of the period is that of a medical practitioner who would treat solely those problems arising on the outside of the body, while its internal workings, being subject to the fluctuations of the humours, were the exclusive domain of the physician. This image has remained long unchallenged in accounts of the history of medicine. In the opinion of some authors it was primarily the diversity of therapeutic methods used rather than the disorders treated that distinguished the work of the surgeon from that of the physician;¹ legally, the surgeon could in fact prescribe only external remedies. Others have maintained that doctors and surgeons were treating two different types of disease: rheumatism, asthma, palsies, fevers, gouts and consumption in the former case; tumours, fractures, fistulae and stones in the latter.² In recent years this image has been greatly revised. Danielle Jacquart takes the view that the idea of the surgeon limiting himself to the treatment of external maladies, manual procedures and the application of topical remedies took shape only in the late eighteenth century: this reductive image of surgery was constructed through the negative opinion formulated by Quesnay in the *Encyclopédie*, which also doomed the achievements of medieval surgery to lasting oblivion.³ Numerous studies have in fact shown how the figure of the ‘doctor-surgeon’, a kind of general practitioner, was relatively common in late medieval society. The learned surgeon who is well versed in Latin and equipped with an academic training, while himself being a prolific author of texts aiming to educate the more ignorant surgeon, is still a feature of the 1500s.⁴

The succeeding period has been given rather less scholarly attention. It is believed, however, that the divisions within the medical profession

became polarised in the early modern age around the distinction between manual and intellectual skills. In the process, the figure of the learned surgeon began to disappear.⁵ These changes are usually seen as being connected to the formation of professional guilds which became particularly effective in the sixteenth and seventeenth centuries.⁶ As a corporate division takes shape between physicians, barber-surgeons and apothecaries we also witness the development of strictures which demarcate (albeit in a contradictory way) the spheres of competence of each group of practitioners, with the inside and the outside of the body taken as an indicator of occupational boundaries.⁷ Moreover, this division brings with it a strong hierarchical element, not just at the level of the practice of medicine but of the supervision of such practice. On the one hand, the legislation in medical matters implicitly decrees surgery's subordination to medicine. In Paris for example, in 1505 barber-surgeons signed the first of several agreements with the faculty of medicine whereby they restricted themselves to the manual aspects of treatment, and confined themselves to treating patients only in the presence or on the command of doctors.⁸ On the other hand, with the growth of centralised supervision of the exercise of medicine, colleges of physicians and, in Italy, Protophysicians, were assigned the task of inspecting the activities of all other practitioners (apothecaries, barbers, surgeons, empirics, midwives), examining them and granting them licences to practise.

Although in some cases the regulations were very biased, securing for physicians the right to practise every form of medicine,⁹ in other situations they were more balanced: in Turin, they seemed more concerned to demarcate the boundaries between the respective domains of action of surgeons, physicians and apothecaries than to endow physicians with supreme power. The order not to 'undertake any function that belongs to the physician' by prescribing oral medication was certainly a persistent one in Savoy's legislation from 1568 onwards (then in 1676 and in 1709 it was also extended to barbers – which seems to suggest that the ban was broken even by those who were licensed as mere barbers).¹⁰ And yet the surgeon's own territory was also protected: the ban on 'practising as a surgeon', which was directed at the apothecary, was repeated in all the medical ordinances from 1618 onwards.¹¹ Similarly, the surgeon's prerogatives over external remedies were protected, for the pharmacist was forbidden to dispense them without a prescription from the surgeon.¹²

The strengthening of corporate language and the divisions that emerge in the organisation of the medical profession has led commentators to conclude that 'the seventeenth century meant degradation as far as surgery was concerned'.¹³ In this chapter I would like to re-examine

the inferior status apparently accorded to surgery in the early modern period. The image of the subordination of surgeons to physicians comes to us through the powerful medium of the professional medical bodies which issued the regulations disciplining the practice of medicine and prosecuted those who violated these rules. However, the documentation produced by these professional bodies (colleges of physicians and Proto-medicali) only reflects the voice of the physician and his representation of the medical order. Can we really conclude that this view was dominant and shared by society at large? Can we be sure that ordinary people accepted the superiority of academic culture and did not appreciate the practical skills of the surgeons? Certainly, the superiority of non-manual work was to some extent interiorised even by the craftsman; but then, in all spheres of society, the manual/intellectual dycotomy coexisted and competed with other sets of values. It is therefore worth exploring alternative representations: what, for example, was the view of surgery proposed by the surgeons themselves? This perspective has rarely been taken into account.

I shall address these and other related issues by looking at the published works of one of the surgeons with whom this book is concerned. My analysis is based on two treatises, *De' Tumori* and *Delle Ferite*, published respectively in 1702 and 1711 by Paolo Bernardo Calvo, 'a member of the College of Surgeons in Turin', on two case histories (dated 1709 and 1711) annexed to the latter treatise, and on a third work published separately in the form of a letter in 1714.¹⁴ My interest in Calvo's writings arises from the fact that he was a thoroughly unremarkable surgeon, though firmly rooted in the professional reality of Turin. Treatises on surgery have been attributed to that elite section of the profession which had also been trained in physic – those who have been defined 'learned surgeons' by historians of medicine in order to differentiate them from the majority who would have received a merely practical training.¹⁵ It was therefore a surprise to me when I came across these published works authored by a surgeon who featured in my biographical index cards without anything else about him suggesting that he might have been at all exceptional.

It seems unlikely that Calvo might number among the learned surgeons of whom Vivien Nutton and others speak: the son of a surgeon, he seems to have received an ordinary training in barber surgeons' shops, and to have followed a normal artisanal career path. He was born in 1669 and, following his mother's death, was orphaned at the age of twelve when his father also died. As guardian for him and his sister, both of them minors, the father had chosen another surgeon, their neighbour Enrico Felice Stura, who was the elder brother to surgeon Matteo, with whom Calvo's father worked in partnership.¹⁶ Thus it was in the Stura shop that

the young Bernardo learned his trade and it was for his father's former partner, Matteo Stura, that he began working as a *Giovane* (a young surgeon).¹⁷ The first time we come across him in the historical records is when at the age of twenty-five, and married some months since, he was fined for practising unlicensed in the San Gabriele *Cantone* together with another young surgeon, Bellino, for Matteo Stura, who, older and better established, was then municipal Surgeon of the Poor.¹⁸ In mitigation, he says he goes no further than 'letting blood, applying cupping glasses, leeches and vesicatories' and that 'he intends to obtain the licence to practise on his own account the following Michaelmas'. Ten years later we find him with his own shop and residing with his wife, three young children and an apprentice in the same *Cantone* of San Gabriele where he had begun his career.¹⁹ When another ten years have gone by, he turns out to be living there still and, besides being a surgeon, is a *Cantoniere*, which is to say he has a responsibility for public order on behalf of the municipality in the same *Cantone* where he lives and works.²⁰ The office was often associated with surgeons, as we shall see.

His activity therefore has a strongly local character, he practises for all his life in the small area of the city in which he was born.²¹ Moreover, he does not seem to be known beyond the boundaries of the city, he has no famous correspondents, and even posthumously no one seems to have taken note of his writings; neither his name nor his works (with the exception of the letter to the more renowned doctor Fantoni) feature in the medical biographies of practitioners active in Piedmont compiled in the nineteenth century.²² Even locally, he does not appear to stand out professionally: unlike some of the surgeons called upon for an opinion in the more difficult and controversial cases cited in his works, he seems not to have held any posts as a surgeon either in hospitals, at court or in the municipal medical service.²³ He was, admittedly, a member of the College of Surgeons (at least from 1702) but, as we shall observe below (chapter two), in this period the majority of surgeons active in the city seem to have been welcomed into its ranks. Yet the view of surgery emerging from his works is quite at odds with the orthodoxy expressed in the ordinances regulating the practice of medicine in the state. An analysis of his writings leads to a radical revision of the internal-external dichotomy, and of the related splits between intellectual and manual, theoretical and practical that have informed the enduring representation of the respective domains of the physician and the surgeon in the early modern period. What credit must we give to his writings? Do they express a minority view of surgery, and of whom are they representative? What relation do they have to the normal practice of surgery?

Calvo's works supply us with an opportunity to rethink the meaning of surgical tracts in this period. It has been maintained that the surgical literature published in the 1500s and early 1600s expresses a project of education for surgeons, and one aiming to unify surgery and physic, advanced by a handful of enlightened surgeons.²⁴ It would be hard to extend this interpretation to the works published by Calvo in the early 1700s: he does not write to educate, although, as we shall see, he takes issue with 'ignorant surgeons' who do not apply themselves to the study of the 'theoretical' and 'do not slake their thirst at the sea of anatomy'; but he writes rather to furnish a noble image of surgery, to say nothing of his own personal contribution to it.²⁵ Calvo's absence of academic background and his unremarkable professional standing testify to this being no purely elitist account. At the same time, the image of surgery presented in his writings, though idealised, is not so abstract and remote from common practice. Studying these kinds of surgical tract in a chapter significantly titled 'Surgery: the hand work of medicine', Andrew Wear has argued that works of this type 'were usually concerned with creating a learned surgery' and would therefore present 'surgery in a distorted light' especially so in their 'tendency to portray the surgeon as someone who theorises about the body, rather than just repairing it'.²⁶ As we shall see this approach is even more noticeable in the Italian material: here practical information and references to manual dexterity, given considerable weight in the treatises of English surgeons, are secondary to the display of theoretical knowledge about the working of the body and its anatomy; references to physical strength, as a desirable attribute of the surgeon, are all together absent. In what follows I would like to take these representational strategies seriously, as evidence of alternative ways of conceptualising surgical work. As we shall see, the views expressed in writings such as Calvo's make sense in terms of humoral physiology and expose the limitations of the legal representation of medical professional divisions, which appears inconsistent with widely shared theories of the body. Why should the surgeon confine himself to repairing the framework of the body as if its outside had no relation to its inside and what appears on the surface had no internal origin or implications? It is difficult to believe that this was the case if one considers that the separation between the outside and the inside of the body is alien to the theory of humours which, as many have suggested, was universally employed to describe the functioning of the body, by patients and practitioners alike.²⁷

Moreover, a number of elements provide confirmation of the authenticity of the episodes reported by Calvo: his treatises are inhabited by flesh and blood human beings. The numerous case histories discussed

refer to patients made recognisable, in a relatively small city, by the fact of being almost invariably quoted with names given in full and occupations mentioned. In one particular case, that relating to the 'extracting of a dead foetus through the navel', I have been able to verify the existence at that time of the patient being described and of her husband, the surgeon Alessandro Moran.²⁸ Likewise, the surgeons named obsequiously by Calvo, or else involved in one way or another in the cases he relates, are equally recognisable. They too do not figure among the practitioners celebrated in dictionaries of medical biography. However, these are very well known characters in the Turin context, and they emerge repeatedly in my biographical reconstruction. Some of them are endowed with a prestigious local reputation (Sebastiano Fassina, Alberto Verna, Domenico Deroy), which derives primarily from the surgical posts they occupy in the city; others are minor characters (Alessandro Moran, Giovanni Francesco Bellino, Giuseppe Deroy).²⁹ To some degree these figures are indeed an elite, but it is a professional elite, rather than the intellectual elite which is usually associated with the authorship of surgical tracts.

Although the question of the audience for these surgical treatises is a matter still to be addressed, it seems logical to see it as including the professional community to which the author belonged – those same surgeons and physicians cited time and again in his pages. Moreover, the strongly local aspect of Calvo's works in itself suggests that the representation of the surgeon emerging from them is consistent with the way in which many other Turin surgeons saw themselves and perceived their profession. Let us take a look at the contents of these writings.

The permeability of the body: external ailments, internal causes

Recent work has already partly modified the traditional view of surgery, which was strongly influenced by the institutional ordering of the medical professions; this has shown, at least with regard to seventeenth-century England, that surgery was not so crucially separated from medicine in epistemological terms. In her study of the English surgeon Binns, Lucinda Beier has argued that he violated the legal distinction between surgery and medicine on a daily basis; he prescribed internal medicines, because he shared the theoretical assumptions of the physician that any disorder could be corrected by re-establishing the balance of the humours. This is why Binns frequently employed purgatives and emetics, observed the patients' bowel movements, treated the system as a whole rather than just the part, and was reluctant to use the knife, preferring gentler procedures.³⁰ Calvo's published works confirm these observations and, more

generally, Andrew Wear's argument that surgeons 'viewed the body and its parts in much the same way as did physicians'.³¹ However, the reassessment of what surgery was in this period can go even further, and include also a reconsideration of how it was understood: it was not just a matter of using internal therapies akin to those prescribed by the physician and of endorsing the theory of the body's humours. In the early 1700s Calvo actually gives an internal explanation for the ailments that appear on the body's surface, thereby ultimately invalidating the very notion of internal and external diseases. Tumours for example, regarded as a classic area for surgical intervention because they exhibit themselves on the surface, challenge this division: the tumour is described as an external manifestation of an internal disorder, at times provoked by 'wounds, dislocations, fractures and contusions', but nonetheless always having its immediate or initial cause in relation to the humours.³² This means, Calvo explains, that every type of tumour takes its name from the dominant humour: 'erysipelatic phlegmon if the bile surpasses the blood, erysipelatoid oedema if the blood predominates', and so on, and can be traced to a different internal pathology. For example:

in the view of Galen, Avicenna and others, the cause of the phlegmon is nothing but blood ... the external causes are injuries and contusions. In the words of a modern observer, the phlegmon's accidental cause is to be identified in a more rapid flow of fluids: heated by a violent movement or exertion, the mass of blood ... flows freely into even the smallest vessels, but when the movement ceases the blood cools down and the dense, viscous particles, being no longer able to flow on, cause obstruction and likewise expand outside the vessels.³³

The correct diagnosis of tumours therefore requires the surgeon to have a knowledge of the internal workings of the body, something which Calvo makes a great show of possessing.

It would seem moreover that a great many internal 'disturbances' sooner or later are exhibited pathologically on the outside of the body: in his dedication to the reader Calvo maintains that there are at least 200 types of tumours (as has been noted, surgeons referred to every kind of swelling as a tumour).³⁴ Clearly, this inordinately increases the scope for surgical intervention.

The approach adopted nine years later in the treatise *Delle Ferite* seems no different. This is extensively concerned with 'compound injuries', which is to say those which have given rise to complications and whose treatment requires an understanding of the internal movement of humours which has caused the degeneration. For example:

The inflammation is produced by a building up of fluids on the affected part; when these find their customary pathway obstructed they cease to flow and they stagnate. Pain arises from the irregular movement of the spirits in the flow to the part and their flowing back towards the brain. The convulsion or spasm occurs either because of the copious and irregular building up of the fluids and the spirits in the motor fibres or else their great effusion. Gangrene stems from the dissipation or concentration of the particles which feed the blood and which are its life spirit, as well as from an obstruction or laceration of the nerves or from a coagulation and interruption of the blood's circulation.³⁵

From the crucial role attributed to the alteration of the humours in causing external pathologies there also derives the need for the surgeon to be aware of the impact 'of the non-natural things' on the health of the patient.

It is the opinion of modern observers that there is a great abundance of different particles to be found in the fluids ... the greater or lesser abundance of these same particles is due to the non-naturals, in particular to the quality of the air and of foods.³⁶

For example, in the case of cancer:

The original causes are all those things which generate blood which is dry and melancholic, such as smoked meats, garlic, onions, pulses and late nights; the internal causes being the hot disturbance of the liver and the weakness of the spleen, the suppression of haemorrhoids and menses.³⁷

Since it must act upon both the internal causes and the non-naturals, the treatment proposed by the surgeon will be wide-ranging and will therefore include prescriptions relating to the diet and the lifestyle the patient must adopt in order to promote a re-establishing of the balance of humours, the issue of blood and the purgatives which eliminate the harmful substances, and the various kinds of local and internal medicines which will assist healing. The knife is only one component, not always a necessary one, and often the last line of treatment. In the case of the phlegmon, for example:

The suggested treatment is to prevent the humour from flowing in copious quantities to the part, evacuating the humour and correcting accidents. With a moderate diet and emissions of blood, through drainage or decongestants, unless there is any counter indication, forbidding it, and with internal laxatives, the first of these [objectives] will be achieved; attempts should be made to dissolve the tumour with local coolants and repellents, but not when it is at the critical stage, and

when there is any sign of suppuration this must be encouraged with suppurants, then when the tumour is pierced the matter contained in it is drained, easing the pain with anodynes and coolants.³⁸

It is clear that the surgeon employs the physician's entire therapeutic range besides his own. He is required in the first place to be able to intervene on the non-naturals: 'The happy outcome of any treatable injury depends not only on the skill of the man who operates but equally on the good use of the six non-natural things.'³⁹ Chapter three of the treatise *Delle Ferite*, for example, which extensively covers the non-naturals, suggests how the noxious effects of the air are particularly to be feared, and sometimes 'are the cause of alterations in the wound which are erroneously attributed to venereal disease, plethora, cacochimy ... when instead it is merely a matter of having left the wound exposed'.

Diet in particular has a prominent place in the surgeon's concerns: it 'must be moderate ... and yet it must be adequate to the person and their habits and here it is appropriate that the surgical rule (*economica chirurgica*) be very shrewd'.⁴⁰ It is striking in this passage that surgery is presented as the discipline that can master the logic of diet. The author then expounds upon the most suitable amount of rest and on the need to preserve the wounded patient from intense emotions – 'anger, melancholy and every other passion should be banished'.⁴¹ The explanation for the danger represented by the passions relates of course to the humours and refers to the mind's capacity to influence corporeal processes, as occurs for example in the case of gangrene:

Gangrene also has its source in the passions of the mind, since it is from anger, melancholy and likewise from the love of Venus that irregular fermentations derive, whereby the salts change their nature and swell through the unaccustomed and violent correspondences that dispose them to become acid, acrid and corrosive.⁴²

The use of pharmacological remedies is moreover quite legitimately a part of the surgeon's trade, and does not seem to be restricted to the physician. For example, certain ('vulnerary') potions, 'composed of: betony, or the roots of formentilla, fraxinella, angelica, lady's mantle, birthwort or other similar herbs which contain a great abundance of oil and salt particles', are recommended to be drunk for a wound.⁴³ And in the 'general treatment of tumours ... the disease which is the related cause' is eliminated with the use of internal remedies to be employed, yet again, 'according to *the economy of surgery*' (my emphasis).⁴⁴ Calvo's treatises are crammed with pharmacological advice. He never puts forward his own medicines but displays his knowledge of both the qualities of the simples,

classified according to the categories of the official pharmacopoeia, and the recipes for the compounds. The latter are usually drawn from the medical literature – ‘the celebrated Muys says that the patient must take sixteen drops of this liquid three times a day in a decoction made with fir needles or spruce’ – but sometimes there are also quack recipes recorded, like the ‘elixir for constipation sold for a great price by a Frenchman to the King of Denmark’.⁴⁵

As we have already seen, Calvo does not confine himself to prescribing local and external remedies as provided for by the regulations on the surgeon’s duties, but he indicates medicaments to be administered in every possible variant: in the form of ‘rubs and ointments’, of oral remedies, of ablutions, drinks and enemas. Depending on the case in question, these various types of remedy are prescribed simultaneously or at different phases of the treatment.

We can see therefore how the distinction between internal and external not only fails to be applied to the maladies, but even to the remedies. Indeed, in the terms used by Calvo this distinction doesn’t feature at all but is replaced by another one: therapies are classified according to the ‘universal-local’ dyad. Within this paradigm, interventions designed to modify the overall balance of the fluids are contrasted with those, implicitly of lesser value, which aim to heal a part of it: ‘the progression of symptoms in serious injuries [is hindered] by diet, the letting of blood, purgatives and other *universals* in conjunction also with *locals* which by themselves alone would be nothing short of useless’ (my italics).⁴⁶ It is clear that a classification which brings diet and oral remedies, theoretically the physician’s prerogative, with blood-letting, a procedure exclusive to the surgeon, under the same category – ‘universals’ – would upset the allocation of therapies and areas of the body to different groups of practitioners.

The use of medications is constant and regularly goes hand-in-hand with surgical functions. For example, in removing foreign bodies, a specifically surgical task, the surgeon must whenever possible use poultices (supplying the recipes himself) in order to draw them out. Here, surgical and pharmacological techniques complement one another rather than being mutually exclusive. We learn for example that there are three types of suture (‘flesh, with distinct and separate stitches; constrictive, with continuous stitches; attached, with distinct but discontinuous stitches’) to be used on different wounds, but they are to be employed always in conjunction with pharmacological remedies which are ‘tightening and glutinous’.⁴⁷ In many cases it is also possible to use alternative remedies to surgery in order to close the wound – what is called ‘dry suture’; the recipe

includes dragon's blood, gum, chalk, flour and the ubiquitous egg-white.

Calvo of course also discusses what we are used to regarding as surgical remedies in the true sense: he talks about types of dressing, cauterisation and ligature, and when these should be used;⁴⁸ he talks about amputation, terming it a 'ghastly operation' and about artificial limbs (the correct procedure for fitting them, what they should be like).⁴⁹ He talks about trepanning of the cranium in the case of internal injuries and specifies the kind of incision to be made in accordance with the size of the tumour.⁵⁰ But his disquisitions on the causes of various maladies and the medications best suited to treating them take up much more room than the space given over to the practical aspects of surgery. For example, there is no particular emphasis on the surgeon's dexterity, which is allegedly one of the cardinal attributes of the profession. Calvo actually asserts that 'hands without the aid of instruments and medicaments would be nothing short of useless'.⁵¹ Moreover, in contrast with what this affirmation might suggest, the space dedicated to the surgeon's tools is also limited. Calvo defends the virtues of some surgical instruments (for example the superiority of some drills and scalpels in cranial trepanning, or of the curved needle in closure of the arteries) but often the instruments appear unworthy of any special mention. It is the talent of the surgeon that is highlighted rather than the quality of the surgeon's technology.

In Calvo's paradigm, therefore, the boundaries between medical and surgical practice fluctuate a good deal. The surgeon for example shares the physician's diagnostic expertise, and indeed he has an even greater range of means for assessing the ailment. The capacity for observation, usually associated with the practice of the physician, turns out to be an essential virtue of the surgeon, who must identify the type of tumour or internal injury out of an extremely broad spectrum. Calvo notably insists on the subtlety of this task: different types of tumour (or injury) have different causes and call for different treatments, so it is crucial to be able to distinguish them. To this end, visual observation is essential, but touch (which is not used by the physician), along with hearing and smell is a precious diagnostic tool for the surgeon. For example:

the indications of erysipelas are a slight elevation and tension which on *touch* easily gives way to a great heat, extreme pain and a *colour* between redness and pallor, which immediately disappears and soon returns if constricted; the indications of the oedema are whiteness, indolence and a softness which easily gives way on touch and slowly becomes raised (my emphasis).⁵²

One can tell whether the injury is simple or compound from indications such as the *noise* made by the air coming out of the wound, from

the presence of haemorrhaging, and from symptoms such as the sensation of weight, difficulties in breathing, pain, tremors, syncope, cold sweats, and the quality of the blood coming out of the wound (my emphasis).⁵³

The examination of injuries also serves to judge whether the blow has incurred any damage to the internal organs: therefore the surgeon must take stock of what is not visible, which is theoretically another prerogative of the physician. This is done partly through local observation accompanied by ‘anatomical examination’, which is to say investigation of the wound with ‘a probe’ [the stylet]; and partly by reconstructing the circumstances of the accident: ‘the expert surgeon must ascertain the causes of the blow, whether it be with a sharp weapon, piercing or blunt, the force with which the blow was struck, or the height of the fall’. Questioning of the patient is therefore as crucial for the surgeon as it is for the physician. Likewise, for the surgeon, taking the pulse is also a valuable indicator of the patient’s condition: ‘it is a sign that death is not far away when blood pours out copiously along with a trembling of the whole body and when a drastic lowering of the pulse can be observed.’⁵⁴

Quoting Hippocrates, Calvo argues that the basis of the ‘noble art of Surgery’ lies in ‘preserving the health of man, safeguarding him from future illnesses, treating and healing those present ones.’⁵⁵ This is an extremely broad definition which goes well beyond the one supplied by the English surgeon James Cooke a decade or so earlier.⁵⁶ In Calvo’s treatises the image of the surgeon is that of someone expert in every aspect of medicine: physiology and the pathology of the humours, the individual’s constitution, diet and the non-naturals, and pharmacology. Equally important is ‘theory’, a term which designates the medical literature.

Theoretical versus practical medicine?

We have already seen how, in the discussion of the properties of medicines, the importance of theoretical knowledge is continually reiterated. Calvo launches repeated salvos against ‘those who use them [medicines] because others are accustomed to... and follow like a blind man led by another who is blind, without studying the qualities, quantities and virtues of those same medicines.’⁵⁷ Implicit in these accusations is the superiority attributed to an approach supplying rational explanations of the therapies adopted, compared with a purely empirical approach. In other passages Calvo explicitly advocates the need for the surgeon to be educated in the texts of the medical tradition, and criticises those colleagues ‘fond of idleness’ who do not read but who confine themselves to practising and

do not encourage their pupils to study. For example, speaking of trepanning of the cranium:

Those who operate must avoid the dangers which are not infrequently encountered by those who have no theory to guide them but only the constant paltriness, indeed the blindness that is practice alone, carrying out such an important operation without the due reflections upon the necessity, manner and time for its performance.⁵⁸

In fact, Calvo continually displays his own knowledge of the medical literature, at every turn quoting the opinions of the ancients (Galen, Hippocrates, Paulus Aegineta, Celsus) as well as the views of those he regards as 'the moderns'. These include names well known to us (such as Fallopius, Duverney, Paré, Chirac, Fabricius, Le Clerc) and also minor figures. These authors, whether well known or less known, classical and recent, seem all to be on the same level and are used indiscriminately as sources. In particular it does not appear that the ancients merit any special debt or greater trust. Only on one point are 'the moderns' repeatedly attacked: on the scepticism they display towards the use of purgatives and phlebotomy, which, they maintain, debilitate the injured person.⁵⁹ At first sight, this might seem a traditionalist retrogression in a work which presents the surgeon as dominating all the instruments of medicine. Yet it should not be forgotten that, as we have already observed, in Calvo's eyes blood-letting enjoys a status of thoroughgoing respect, possessing the dignity of a 'universal' therapy since it acts upon the movement of the fluids rather than just healing the locally diseased part.

In Calvo's treatises the emphasis is upon the necessity to determine the nature of the illness with certainty; only this kind of understanding can suggest the most suitable treatment. A great many pages are therefore devoted to disquisitions upon correct diagnosis, while the treatment is dealt with in somewhat general terms, and even when its practical aspects are dwelt upon it is not so much the dexterity of the hand which is praised as the capacity to decide whether it is necessary to have recourse to these means or not. This capacity is achieved through both theoretical study and the knowledge of anatomy gained in the practice of dissecting cadavers. Calvo acknowledges anatomy as having a crucial role, but more as an accessory which assists the surgeon's thinking about the body of the patient than as a source of manual expertise: 'it is what opens up the surgeon's way to diagnostic and prognostic indications, not merely for understanding the cause from the effect but in order, with anatomical knowledge, to anticipate the symptoms and predict their effects.'⁶⁰ Practical experience has a limited role by comparison with the theoretical.

We are a long way from that exaltation of the practical side of surgery and of manual skills which we encountered in the writings of seventeenth-century English surgeons.⁶¹ Things have clearly changed. Calvo brings in numerous episodes drawn from his own surgical practice or that of his colleagues, but always when he is discussing an interpretation which is controversial in the literature. The description of a case allows him to take up a stance in a dispute in favour of one or another theory. For example, Calvo argues for the capacity of certain wounds to heal themselves, despite the contrary view of Hippocrates, Celsus and Avicenna, who see them as being fatal, and to this end he cites the case he had observed of a woman treated by his colleague Alberto Verna.⁶² Calvo's opinion is not however presented as an original one; he restricts himself to corroborating an argument already upheld by an author. He is somewhat cautious and, since he makes no claims for miraculous methods and remedies that would liken him to some charlatan, he boasts no new discoveries or interpretations, instead remaining content with his ability to participate in the discussion between experts.

It is on the question of whether it is necessary to proceed to the trepanning of the cranium in order to extract 'intrusive blood' (cerebral haemorrhage) that Calvo brings in the greatest number of examples taken from his surgical practice. This technique, probably not very widely performed, is presented as if it were Calvo's speciality (he carried it out successfully even on an eight-year-old boy). In this case too the focus of the discussion turns on ascertaining whether it is necessary to proceed to trepanning, rather than on the procedure's technical aspects. The various cases are in fact all cited in support of the argument that 'indications can be misleading: there are fractures without symptoms and then there are fractures with cerebral lesions that heal without trepanation.'⁶³ It is therefore the surgeon's diagnostic qualities which are being celebrated rather than his practical skills:

some days after the memorable liberation from siege of the royal city of Turin I had occasion to undertake numerous operations of trepanning, six of these being performed in one single day, and in different subjects with fractures I observed no variation in symptoms. These were treated by others as simple injuries but after having carried out a diligent examination of the damage I found intrusive blood in all of them.⁶⁴

Calvo cites for example the case of Domenico Picco, who was fleeing pursuit at night when he fell and injured his face. The first surgeon to examine the patient initially deemed the accident a minor one, then, after Picco experienced fever, haemorrhaging and delirium, suggested that

‘another surgeon’ be called, namely Calvo, who overturned the diagnosis and launched ‘a crusade’ to persuade patient and family of the necessity to undertake trepanation.⁶⁵ What is clear in his account of this case is the wish to display that other virtue required of the good surgeon, over and above knowledge of anatomy and medical texts: decisiveness – the decisiveness to proceed undaunted to an unpopular operation when this proved necessary, challenging both the views of over-cautious or ignorant practitioners and the anxieties of patients and their families.

The multiple meanings of surgical tracts

The instance of trepanation also allows Calvo to illustrate the character traits as well as the intellectual gifts which are indispensable for the good surgeon: well-balanced resolve in decision-making, timeliness in taking action. These are traits which also have a bearing upon the construction of masculinity explored later in this book. It is impossible to avoid seeing in these and other passages the rhetoric of the surgeon as a brave and solitary warrior in his far-sightedness, vanquishing evil and willing to be associated, to this end, with techniques and instruments the mention and sight of which produce terror. As he says of amputation: ‘Surgery is at its most compassionate when it shows itself to be cruel.’⁶⁶

And yet, alongside this proposed image of heroism, the narrative also leaves room for the strategies of consensus enacted by surgeons when it came to the use of unusual and hazardous therapies. The principal instrument of this was consultation with other practitioners, which was used undoubtedly to win the patient’s authorisation, but also, it can be argued, with an eye on safeguarding the surgeon’s own professional integrity. Let us see how the case of Domenico Picco develops as Calvo sets out to perform a trepanation:

to overcome the repugnance induced by the persuasions of the aforementioned surgeon, who because of being French had an opinion of his own, I took counsel more than once on the case, firstly with my colleague Giovanni Bellino ... but some doubt remained about the necessity for the operation ... [but since the symptoms persisted] I renewed my consultations, for had death occurred it would have been an unceasing reproach to me and then I myself well know that *had I not, I should have been accused with criticisms of carelessness for not using my skill to prevent it*. To this end I took counsel twice again with another expert called by the injured man’s relatives, Carlo Giuseppe Deroy, who was of my opinion and the operation took place in his presence alone (my emphasis).⁶⁷

In this passage the utter vulnerability of the surgeon's reputation stands out, this being subject to continuous scrutiny and exposed to manipulations.⁶⁸ The consultations serve to give public legitimacy to the surgeon's decisions and to protect him from possible future attacks by his clients and by the local medical community if things were to go wrong.⁶⁹

It would seem that the publication of writings such as those we are examining fulfilled an analogous function. The account given of cases which refer to flesh and blood patients and practitioners, well known to the community in which these writings probably had the widest circulation, show us how much printed works aimed to protect the good name of the surgeon, discrediting negative rumours about the unconsidered nature of some of his decisions and resolving professional disputes. Indeed, Calvo's works are full of obscure (to us) references to conflicts, disagreements and enmities which must however have been grasped by local readers.⁷⁰ The remarks that have been made about another early modern literary genre, the artisan's autobiography, can well be applied to these writings: 'autobiographical writing served to settle accounts, file complaints, avenge insults (real or imagined), and generally to right wrongs – all not far from what Freud calls "motives of unpleasure"'.⁷¹

So if we ask ourselves for what reason a surgeon, who by conventional parameters is relatively obscure, should take up the pen in the early 1700s and write a series of treatises and letters regarding the cases he has treated, there seem to be multiple answers. On the one hand these works must be read not as being aimed at a remote and impersonal medical readership but as engaging in dialogue with a well-known professional community and a local lay audience. They probably had an important promotional and protective role to play within the small world of their author. It is hard not to think for example that the printed letter addressed by Calvo to the physician Fantoni, about the 'extraction of a dead foetus through the navel' would have been intended to dispel the doubt that a fatal diagnostic and surgical error might have been committed upon the body of a woman who took some days to die in the wake of a bloody operation and who, incidentally, was herself the wife of a surgeon. The letter comes furnished with a reassuring reply from Fantoni and with another intervention also supporting Calvo from a physician in a nearby town, Paulo Agostino Luppi. Although these are presented in the terms of learned debates on the accuracy of the diagnosis, it seems clear that the publication of the case and of these professional opinions is aiming to give Calvo public absolution from implicit accusations of malpractice.⁷²

On the other hand these works offer us an insight into how an ordinary practitioner like Calvo wished to represent his own profession

at the start of the 1700s, and into the values which shaped the surgeon's professional identity in this period. Of course the writings in question should also be examined as part of a tradition of works on surgery from which they inherit thematic and narrative models. But the decision to emphasise certain aspects at the expense of others becomes quite clear if one goes on to consider the text in detail. Calvo's works do not share that aim of circulating knowledge and techniques identified by Nutton in the writings of the learned surgeons of the sixteenth century, nor the pride in manual skills highlighted by Wear in the works of the English surgeons of the following century. Stress is laid systematically on the superiority of theory over practice and on the reasoning powers required of the surgeon. We have observed the strength of Calvo's will to demonstrate the scope of the surgeon's knowledge, to prove that he knows the medical literature down to his fingertips and can expound with refinement on the distinctions between health disorders of similar appearance, that he knows the properties of medicines and how to administer them and is an expert in every domain of the physician's traditional competence. In his epistemology we have perceived that he overrides the very distinctions between internal and external diseases and therapies. I have suggested that these views are indicative of a lack of consensus about the principles underlying the legal/corporative demarcations which structure the medical profession; they highlight a tension between the voice of the physician and that of the surgeon which deserves further attention.

At the same time, these characteristics cannot but be a reflection of the esteem in which surgery is held at the start of the 1700s. In the quarter of a century since surgeons had taken charge of medical treatment in the army and navy, as well as provision for the very poor in the hospitals and, through the municipal medical service, in their homes, the dignity of the occupation had grown enormously. The surgeon increasingly fashions himself as a kind of general practitioner and the distinction between learned and unlearned surgeons is no longer so significant in this period; the former group was not any more an exclusive minority despite the fact that surgical education was still widely taking place outside the university. Calvo's treatises suggest that the idea and practice of surgery were being altered 'from below', well before the advent of the reforms of the 1720s and 1730s which have been credited for enhancing the status of the surgeon given that, on paper at least, they moved his education to the university.⁷³ Although the information concerning a surgeon's education prior to the reform of the university of 1729 is extremely scant, it would seem that, already in the second half of the seventeenth century, his training was not strictly manual but had the advantage of theoretical components,

a certain familiarity with medical texts and the opportunity to develop an increasingly intellectual approach to the occupation. The custom of attending university courses, especially the one in surgery, which, unlike the others, was held in the vernacular, had become relatively common. The fact that the obligation for surgeon's apprentices to attend 'the lecture in surgery ... at the university or the house of the reader', decreed in 1634 and confirmed in 1657, was not repeated in the successive medical ordinances suggests that this became standard practice in the following decades. In 1634, an attestation from the reader that the young man had attended the course and studied the subjects taught had already become a requirement for securing a licence to practise from the *Protomedico* (Protophysician).⁷⁴ Nor can it be ruled out that the private teaching of surgery, given on a fee-paying basis by the more eminent surgeons in their homes to small groups of students, might have become widespread in the early decades of the eighteenth century in Turin, just as it had in nearby France.⁷⁵ The complaint by the professor of surgery responsible for reforming the university that 'the surgeons of Turin hold schools in their shops and dissuade young men from going to the university' suggests this was so.⁷⁶ Too little is known at present of these independent forms of education, it is clear however that our understanding of the medical world and divisions within it has placed too much emphasis on universities as the only seats where an academic surgical education could be acquired. It is possible that this more composite training, which included attendance at the shop, at the university, at private lessons in the home of private tutors and, for many, hospital practice, explains a figure like Calvo and ways of exercising surgery in which theory and practice, manual operations and intellectual reflections do not appear as incompatible as it has often been assumed.

Finally there remains the author's subjectivity. I have found nothing in Calvo's life which might explain his prolific output as an author, a feature which seems at odds with the absence of any posts in the hospitals or at court. Numerous conjectures can be made: for example that the very lack of greater professional recognition impelled him to cultivate study and writing – the resentful and even violent tone to be found in his works whenever he refers to unnamed colleagues who are backward and ignorant, can lead one to think so. Certainly, his writings are an opportunity to exalt the superiority of his own diagnostic and prognostic talent by comparison with other practitioners. And yet his is not a protest against the medical community as a whole; many colleagues are praised and admired. Calvo does not therefore strike us as a marginal figure; he can of course be an unusually learned (and resentful) representative of

the professional establishment, but he is a member of it to all intents and purposes; he seems to have good relations with many notable colleagues; and he seems also to be socially integrated into the Turin professional scene, for instance forging relationships with eminent practitioners in the city through godparenthood. However much the image of surgery offered by Calvo may be idealised, it cannot be a daydream entirely disconnected from the practice and perception of those like himself.

Notes

- 1 See for example Beier, 'Seventeenth-century English surgery', p. 54: 'Legally surgery was defined less by the disorders it treated than by its therapeutic methods'.
- 2 P. K. Wilson, *Surgery, Skin and Syphilis. Daniel Turner's London (1667-1741)* (Amsterdam, 1999), p. 59.
- 3 D. Jacquart, *La Médecine Médiévale dans le Cadre Parisien XIVe-XVe Siècle* (Paris, 1998), pp. 16-47; C. Rabier, 'Chirurgie', in D. Lecourt (ed.), *Dictionnaire de la Pensée Médicale* (Paris, 2004), pp. 231-7.
- 4 See the examples gathered for Venice and Feltre by Richard Palmer in 'Physicians and surgeons in sixteenth-century Venice', *Medical History*, 23 (1979); V. Nutton, 'Humanist surgery', in A. Wear, R. K. French and I. M. Lonie, *The Medical Renaissance of the Sixteenth Century* (Cambridge, 1985).
- 5 Pomata, *Contracting*, pp. 61-2; Wear, *Knowledge*, pp. 217-18. It seems significant for example that the academic surgeons of the Company of Saint Côme united with that of the ordinary barber-surgeons' company in 1655; Gelfand, *Professionalizing*, p. 24.
- 6 For France see the detailed reconstruction of this process of incorporation in Brockliss and Jones, *The Medical World*, chapter 3. For Italy, see the Bolognese case studied by Pomata, *Contracting*, especially pp. 69-72.
- 7 *Ibid.*, pp. 133-4.
- 8 Gelfand, *Professionalizing*, p. 22.
- 9 This is the case for Bologna and London: see Pomata, *Contracting*, p. 63; Wear, *Knowledge*, p. 217 and n. 20.
- 10 The ordinances 20 October 1568, 1 April 1618, 10 August 1657, 10 February 1660 are published in Borelli, pp. 966-97, and those of 3 March 1676 and 22 February 1709 in Duboin, vol. 10, pp. 85-7, 100.
- 11 'It will be prohibited to any apothecary to order or apply cupping glasses, or to carry out the surgeon's work, under penalty' Borelli, p. 974, 1 April 1618.
- 12 The pharmacist was then for his part protected from the physician, who was repeatedly enjoined not to make medicines. See in particular the ordinances of 1676 and 1709 cited in n. 10.
- 13 Cited in Gelfand, *Professionalizing*, p. 22.
- 14 *De' Tumori; Delle Ferite; Lettera Istorica di Paolo Bernardo Calvo Chirurgo Colleggiato in Torino* (Turin, 1714).
- 15 Nutton, 'Humanist surgery'; Wear, *Knowledge*, pp. 212, 222; J. L. Fresquet Febrer, 'La práctica medica en los textos quirúrgicos espanoles en el siglo XVI', *Dynamis*, 22 (2002).

- 16 These biographical details are drawn from the notarial documents relating to Paolo Bernardo, to his father, and the Stura brothers: Ins. 1679, l. 3, c. 625; 1681, l. 4, c. 835; 1681, l. 7, c. 397; 1690, l. 4, vol. I, c. 45; 1694, l. 3, vol. II, c. 831.
- 17 Literally, 'youth'. The term describes a surgeon's assistant or journeyman. See chapter 6.
- 18 'Registro delli chirurghi ... di Torino', statement of Paolo Bernardo Calvo. A *Cantone* or *isola* was a group of adjacent houses marked out by three or four streets. The number of residents in each Cantone ranged from 100 to 300. In the last quarter of the seventeenth century the city appeared divided into more than 120 Cantoni: F. Rondolino, *Vita Torinese durante l'Assedio (1703–1707)*, vo. 7 of Regia Deputazione di Storia Patria, *Le Campagne di Guerra in Piemonte (1703–8) e l'Assedio di Torino (1706)* (Turin, 1909), p. v.
- 19 Art. 530.
- 20 AST, s. I, *Provincia di Torino*, m.1, 'Cantonieri'. The duties of the *Cantoniere* will be discussed at length in chapter ten.
- 21 Even though he casually introduces a reference 'to the numerous observations I was able to garner in the course of my great travels even as far as the kingdoms ruled by the Turk'. *Delle Ferite*, p. 481. Here Calvo seems to be turning to a standard theme, the experience accumulated on exotic travels, which is characteristic of the way in which the authors of the books of secrets presented themselves in the sixteenth and early seventeenth centuries. William Eamon gives numerous examples of this in his *Science and the Secrets of Nature. Books of Secrets in Medieval and Early Modern Culture* (Princeton, 1994), particularly in chapter 4.
- 22 This is the *Lettera Istorica* 'in which he describes the extracting of a human foetus through the navel', mentioned in B. Trompeo, *Dei Medici e degli Archiatri dei Principi della Real Casa di Savoia* (Turin, 1857–58), p. 59.
- 23 Biographical research has brought no appointments to light. Moreover, it is unlikely that, if he had held any of these positions, these would not be mentioned in the presentation of the author in his printed works and in the notarial documents where he appears.
- 24 Nutton, 'Humanist surgery'; Wear, *Knowledge*, p. 211.
- 25 My approach in the reading of these works is similar to that adopted by Lianne McTavish in her analysis of early modern French obstetrical treatises. These, in her view, 'did far more than transmitting medical information': they outlined the characteristics of the 'admirable' midwife and man-midwife (L. McTavish, *Childbirth and the Display of Authority in Early Modern France* (Aldershot, 2005), pp. 14–15).
- 26 Wear, *Knowledge*, p. 211–12.
- 27 B. Duden, *The Woman Beneath the Skin* (Cambridge Massachusetts, 1991); Pomata, *Contracting*, pp. 129–39; Wear, *Knowledge*, especially chapter 3.
- 28 *Lettera Istorica*. On the frequent presence, in surgeons' books, of episodes from their own professional experience: see N. G. Siraisi, *Medieval and Early Renaissance Medicine. An Introduction to Knowledge and Practice* (Chicago, 1990), pp. 170–1.
- 29 Their names and their activities will crop up repeatedly in the course of this book. During his career Sebastiano Fassina held the posts of Surgeon to the Poor, Anatomist at the University, Surgeon to the Duke, His Majesty's Aide de Chambre, Surgeon General to the Army; Domenico Deroy was chief surgeon at the hospitals of San Giovanni, the Carità, and Santi Maurizio e Lazzaro, anatomical dissector at the University, and

- army surgeon; Alberto Verna was chief surgeon at the hospital of San Giovanni and the Carità, anatomist at the University, Surgeon to the Princesses; Giovanni Francesco Bellino was Surgeon to the Poor and Surgeon to the Household of Madama Reale; Giuseppe Deroy was chief surgeon at the hospital of Santi Maurizio e Lazzaro; no posts emerge in the case of Alessandro Moran.
- 30 Beier, 'Seventeenth-century English surgery', pp. 54–5, 72–3.
- 31 Wear, *Knowledge*, p. 212.
- 32 *De' Tumori*, p. 2.
- 33 *Ibid.*, p. 9.
- 34 Beier, 'Seventeenth-century English surgery', p. 68.
- 35 *Delle Ferite*, p. 42.
- 36 *De' Tumori*, p. 9.
- 37 *Ibid.*, p. 41.
- 38 *Ibid.*, p. 9.
- 39 *Ibid.*, p. 21.
- 40 The term 'economica' is associated in this period with the rule of government, in particular with prudence, and is often used in relation to the careful administration of the household: see D. Frigo, *Il Padre di Famiglia* (Rome, 1985), pp. 65–7.
- 41 *Delle Ferite*, p. 23.
- 42 *Ibid.*, p. 63.
- 43 *Ibid.*, p. 22.
- 44 *De' Tumori*, cap. VII.
- 45 *Delle Ferite*, p. 89. Compound remedies are made up of vegetable, animal and mineral elements: cuttlefish bone, hare bristles, chimney soot, ashes of crayfish and squill, pulverised coral, hematite stone, aloe, vitriol, cobwebs, red sandalwood, incense, pomegranate rind, dragon's blood, bole armeniac. Many of these ingredients are much more banal than their names suggest: dragon's blood signifies common-or-garden tarragon and bole armeniac is a kind of clayey earth.
- 46 *Ibid.*, p. 36.
- 47 *Ibid.*, p. 33.
- 48 *Ibid.*, pp. 55, 70–1, 96–7.
- 49 *Ibid.*, pp. 91, 111–12.
- 50 *Ibid.*, p. 127.
- 51 *Ibid.*, p. 30.
- 52 *De' Tumori*, p. 16.
- 53 *Delle Ferite*, p. 15.
- 54 *Ibid.*, p. 15.
- 55 *De' Tumori*, p. 1.
- 56 Wear, *Knowledge*, p. 213.
- 57 *Delle Ferite*, p. 30.
- 58 *Ibid.*, p. 160.
- 59 *Ibid.*, pp. 72, 42–4.
- 60 *Ibid.*, p. 14. Anatomical knowledge is also essential to surgical techniques in order to avoid damaging the adjacent parts of the body.
- 61 Wear, *Knowledge*, pp. 212, 233.
- 62 *Delle Ferite*, p. 16.
- 63 *Ibid.*, p. 141.

- 64 *Ibid.*, p. 146.
- 65 *Ibid.*, p. 150.
- 66 *Ibid.*, p. 91.
- 67 *Ibid.*, pp. 148–50.
- 68 The public scrutiny to which practitioners were subjected and the role of tracts in providing a reassuring image of themselves is also a central theme in McTavish, *Childbirth*.
- 69 Wilson, *Surgery*, p. 47; Beier, ‘Seventeenth-century English surgery’, pp. 50–1.
- 70 On medical tracts as vehicles for the expression of professional rivalries: see McTavish, *Childbirth*, chapter five.
- 71 J. S. Amelang, *The Flight of Icarus. Artisan Autobiography in Early Modern Europe* (Stanford, 1998), p. 194.
- 72 *Lettera Istorica*, especially p. 15.
- 73 For example, D. Carpanetto, ‘Gli studenti di chirurgia’, in D. Balani, D. Carpanetto and F. Turletti, *La Popolazione dell’Università di Torino, BSBS*, 76 (1978). The university course in surgery was three years long and, from 1729, it became one of the requirements for securing authorisation to exercise the profession in the cities of the state ‘on this side of the Mountains’ (that is, in Piedmont); in Savoy and in the district of Nice, aspiring surgeons ‘could study in their homes.’ Moreover the regulations remained (perhaps deliberately) ambiguous about the training required for surgeons who did wish to practise in Piedmont but in the villages. Duboin, vol. 14, ‘Regie Costituzioni’, 20 August 1729, p. 733. The new rule did not affect the position of those already authorised to practise surgery: *ibid.*, ‘Regolamento per l’Università’, 20 September 1729, Capo 12, clause 13, p. 645.
- 74 Orders of 2 November 1634, clause 9, and of 10 August 1657, clause 3, in Borelli, pp. 984, 993–4.
- 75 This phenomenon has been observed at the turn of the century in Paris and in other French university towns, Brockliss and Jones, *The Medical World*, pp. 509–12.
- 76 AST, s. I, Regie Università, m. II, fasc. 4, ‘Progetti di regolamenti e provvedimenti dell’Università di Torino’, no date but presumably c. 1720.

*Health, beauty and hygiene:
the broad domain of a barber-surgeon's duties*

On Barbers

The art of these is in the selfsame way neat and clean. Since their end and purpose is the cleansing of the body, which is brought about by shaving, the trimming of hair, the washing and thorough buffing of those who have recourse to them, and their business can be set up with a very small expenditure given that the entire architecture of barbers is comprised in a basin, two razors, a lancet, a tenaculum, a pair of tongs, a comb, an earring, though not one that belonged to the Hunchback of Milan, two pairs of face towels, a sponge, a brazier with some coals, a bucket of lye and a small flask of rosewater for splashing faces with. Barbers are also used for blood-letting of the sick, and for applying cupping glasses, dressing wounds, giving enemas, extracting rotten teeth and other such things, so that their art, as Bernardino de Bistis says in his Rosary, is thereby inferior to the science of medicine.

[Tomaso Garzoni, *La piazza universale di tutte le professioni del mondo*, (Venice 1665. 1st edn. 1586)]

Hair, sweat and other kinds of 'excrements'

The picture of the surgeon that emerges from our discussion of Calvo's works has reduced considerably the distance that it is usually held to exist between surgeon and physician. We must now turn to another aspect of the image of the surgeon: the turbulence that allegedly characterised his relationship with the barber. Although the closeness between the duties of these two figures has frequently been observed, the history of medicine has for the most part described this pairing in negative terms. According to this view the association of surgery with hygienic and aesthetic services was regarded as degrading and undesirable by surgeons. Historians are eager to demonstrate the repeated attempts of the latter to separate from barbers and distance themselves