

“You Have No Good Blood in Your Body”. Oral Communication in Sixteenth-Century Physicians’ Medical Practice

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Abstract: In his personal notebooks, the little known Bohemian physician Georg Handsch (1529–c. 1578) recorded, among other things, hundreds of vernacular phrases and expressions he and other physicians used in their oral interaction with patients and families. Based primarily on this extraordinary source, this paper traces the terms, concepts and images to which sixteenth-century physicians resorted when they explained the nature of a patient’s disease and justified their treatment. At the bedside and in the consultation room, Handsch and his fellow physicians attributed most diseases to a local accumulation of impure, putrid or otherwise pathological humours. The latter were commonly said to result, in turn, from an insufficient concoction and assimilation of food and drink in the stomach and the liver or from an obstruction of the humoral flow inside the body and across its borders. By contrast, other notions and explanatory models, which had a prominent place in contemporary learned medical writing, hardly played a role at all in the physicians’ oral communication. Specific disease terms were rarely used, a mere imbalance of the four natural humours in the body was almost never inculpated, and the patient’s personal life-style and other non-naturals did not attract much attention either. These striking differences between the ways in which physicians explained the patients’ diseases in their daily practice and the explanatory models we find in contemporary textbooks, are attributed, above all, to the physicians’ precarious situation in the early modern medical marketplace. Since dissatisfied patients were quick to turn to another healer, physicians had to explain the disease and justify their treatment in a manner that was comprehensible to ordinary lay people and in line with their expectations and beliefs, which, at the time, revolved almost entirely around notions of impurity and evacuation.

Keywords: Early modern medicine, Oral communication, Humoral pathology, Disease concepts, Medical lay culture, Doctor–patient encounter

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Oral communication with patients and families played a paramount role in the daily practice of early modern physicians. The physicians commonly based their diagnosis, at least in part, on the patient narrative, which could include a detailed account of the patient's current complaints and their possible causes, as well as a history of previous episodes of disease and medical treatments.¹ The physician's oral *iudicium*, in turn, his diagnostic and prognostic judgment and his therapeutic recommendations, were the culmination of what scholars have aptly called the 'drama of medical practice', a drama that was often enacted in front of a sizeable 'audience' of families, friends and other bystanders.² (eds)' given OK here. MEB: correct Latin plural, but suggest better for hyperlinks to repeat surnames: *The Social Construction of Illness . . . 66'*

Unfortunately, our knowledge of the actual contents of the oral communication between early modern physicians and their patients is very limited. Occasionally, we find brief accounts of such verbal exchanges in autobiographical writing, in personal correspondence or in published *observationes* or case histories. Patients or relatives who consulted a physician by letter – a fairly common practice among the upper classes – sometimes recounted what other physicians had previously said about the disease in question.³ Ultimately, however, we only have very limited access to oral exchanges in early modern medical practice even regarding the literate upper classes, and we are almost completely in the dark when it comes to the large majority of ordinary people.

In this paper, I will attempt to shed some light on a major aspect of this oral exchange, namely on the physicians' part in the conversation, and on the terms, concepts and images they used in their personal encounters with patients and their families. This is made possible by an extraordinary source. Among the papers of Georg Handsch (1529–c.1578), a little known German-Bohemian physician, several notebooks have survived with, all together, some 4000 pages of notes on medical practice.⁴ A native of Leipa, Handsch started taking these notes in Prague in the late 1540s when he was still a student at the arts faculty but began to see patients with a local physician, Ulrich Lehner.⁵ In 1550, he went to Padua to study medicine and obtained a doctorate in Ferrara. After his return to Prague, in 1553, he began to work as a kind of apprentice physician with Andreas Gallus, personal physician to Archduke Ferdinand, and also saw patients with Pierandrea Mattioli

¹ Robert Jütte, *Krankheit und Gesundheit in der Frühen Neuzeit* (Stuttgart: Kohlhammer, 2013); Michael Stolberg, *Experiencing Illness and the Sick Body in Early Modern Europe* (Basingstoke and New York: Palgrave Macmillan, 2011).

² Jens Lachmund and Gunnar Stollberg, 'The Doctor, His Audience, and the Meaning of Illness: The Drama of Medical Practice in the Late 18th and Early 19th Centuries', in Lachmund and Stollberg (eds), *The Social Construction of Illness: Illness and Medical Knowledge in Past and Present* (Stuttgart: Steiner, 1992), 53–66.

³ For example Universitätsbibliothek Erlangen, ms 1029, 634–7, letter from the Abbess Maria Constantia, 1 January 1715; Bibliothèque Interuniversitaire de Médecine, Paris, ms 5241, fols 194r–196v, letter from Monsieur Collart, not dated (early 18th century).

⁴ Österreichische Nationalbibliothek, Vienna (henceforth: ÖNB), Cod. 11183, Cod. 11200, Cod. 11205, Cod. 11206, Cod. 11207, Cod. 11238, Cod. 11247. These notebooks will be the principal source of a monograph on Handsch and 16th-century medical practice that I am currently working on. On early modern notetaking, in general, see Ann M. Blair, *Too Much to Know: Managing Scholarly Information Before the Modern Age* (New Haven, CT, and London: Yale University Press, 2010).

⁵ For biographical information see Rudolf Wolkan, *Geschichte der deutschen Litteratur in Boehmen bis zum Ausgange des XVI. Jahrhunderts* (Prague: Haase, 1894), 124–33; Leopold Senfelder, 'Georg Handsch von Limus: Lebensbild eines Arztes aus dem XVI. Jahrhundert', *Wiener klinische Rundschau* (1901), 495–9, 514–6, 533–5. Recent Czech scholarship has highlighted, in particular, Handsch's achievements as a poet; cf. Josef Smolka and Marta Vaculínová, 'Renesanční lékař Georg Handsch (1529–1578)', *DVT – Dějiny věd a techniky*, 43 (2010), 1–26; Lucie Storchová, *Paupertate styloque connecti: Utváření humanistické učenecké komunity v českých zemích* (Prague: Scriptorium 2011), especially 97–100.

and other physicians. Eventually he also took care of some patients of his own and, in the 1560s, he was appointed as personal physician to the Archduke, with whom he moved to Innsbruck. There he took care of the ducal family in nearby Ambras as well as treating patients in Innsbruck and the surrounding villages.⁶

Handschr took notes throughout his life, but most of his notes reflect his first years as a young physician. He seems to have recorded, above all, what he considered to be of potential value for the diagnosis and treatment of future patients.⁷ Occasionally he followed the progress of a patient's disease and treatment over several pages, but most entries are short, frequently extending over no more than three or four lines. He collected all kinds of observations he and his colleagues made at the bedside, sometimes marking particularly important or instructive ones in the margin with a 'nota bene', an 'ad cautelas', or a little trefoil. He reported on the different opinions of his mentors and colleagues about the nature and causes of certain diseases, the validity of certain diagnostic signs or the efficacy of certain drugs. Last but not least, he copied hundreds of prescriptions they had written for individual patients.

Handschr did not limit himself to technical matters, however. His notes bear witness to his belief that a successful physician also needed to know how to deal with the patients and their families, how to communicate with them, how to gain and maintain their confidence. Accordingly, Handschr frequently also wrote down what he himself or one of his mentors or colleagues had said to patients and families, how they had explained the disease in question and justified their treatment. In contrast to his other entries, which are almost exclusively in Latin, he usually did so in vernacular German, his own mother-tongue as well as that of many of the patients.⁸

Some of the expressions that Handschr recorded did not address strictly medical issues. We also find phrases designed to admonish the sick to be patient or to trust in God, or to warn them and their families that a cure was unlikely because of the progression of the disease, their late request for professional medical help or the advanced age of the patient. In this paper, I will focus on about 600 entries, in which Handschr explicitly took note of how he himself, his colleagues or, more rarely, other healers explained diseases, their causes and their treatment to patients and their families.⁹ In about one in five entries, Handschr recorded what others or he himself had said to a specific, identified patient and occasionally he even documented a short back and forth of questions and answers between the physician and the patient. More rarely, on the other hand, Handschr explicitly stated that a certain phrase was of general use in certain cases. For example, one could explain in chronic diseases that the liver, the lungs or the spleen had become adherent and made breathing difficult. Women could generally be told that their uterus contained corrupt matter.¹⁰ In the majority of cases, the name of the patient is not given and we cannot be entirely sure that the words were actually spoken.¹¹ Probably, Handschr simply felt no need

⁶ Josef Hirn, *Erzherzog Ferdinand II. von Tirol*, 2 vols (Innsbruck, 1885), *passim*; Otto Rudel, *Beiträge zur Geschichte der Medizin in Tirol: Gesammelt für das Etschländer Ärzteblatt* (Bozen: Vogelweider, 1925), 74–7.

⁷ Cf. Michael Stolberg, 'Empiricism in Sixteenth-Century Medical Practice: The Notebooks of Georg Handschr', *Early Science and Medicine*, 16 (2013), 487–516.

⁸ Handschr called himself a 'Germano-Bohemus'. He also knew 'Bohemian', ie. Czech, and taught it to others but, in his notebooks, he rarely noted Czech terms and expressions.

⁹ Such expressions can be found, in particular, in ÖNB, Cod. 11206.

¹⁰ *Ibid.*, fol. 17v.

¹¹ At least in retrospect, some non-diagnostic expressions appear quite rude, when patients are advised, for example, that they better accept that they are getting old.

to add the name because it was obvious to which kinds of patients or cases he could apply these expressions in the future. At any rate, I have not been able to find any difference in comparison with entries that he associated with a specific individual patient. Nevertheless, in what follows, I will primarily draw on entries with expressions recorded explicitly as having been used in the encounter with one specific, identified patient.

The place where the oral exchange between physicians and patients took (or was expected to take) place is usually not mentioned. It emerges from Handsch's other notes that he and his fellow physicians frequently visited patients in their private houses, but that occasionally patients would also come to see the physician, or that a relative or servant would bring the patient's urine to the physician's house. The patients came more or less from all ranks of society. Noblemen and other high-ranking patients played a very prominent role, which is not surprising given that Handsch's two principal mentors, Gallus and Mattioli, were court physicians. Even among their patients, however, and even more so among those whom Handsch saw with Ulrich Lehner and whom he treated himself in Prague, Leipa and, later, Innsbruck, we also find quite 'ordinary' people. There are country folks ('rustici'), craftsmen such as tailors, carpenters, stone cutters and brewers, pupils and students in addition to a range of people who had different kinds of court employment, from teachers and chaplains to cooks, kitchen boys, and stable servants. Moreover, for many patients Handsch and his colleagues saw, he only recorded the name without the 'D[omi]nus' or 'D[omi]na' reserved for the high-ranking, or simply referred to them as 'an elderly woman from Zbraslaw' or 'a poor boy in the hospital'.

Based on this material, I will start by describing the terms, concepts and images that sixteenth-century physicians like Handsch and his colleagues used in their oral communication with the patients. In a second step, I will look at the differences between these notions and images and those we find in contemporary learned medical textbooks. In conclusion, I will offer some thoughts on the possible reasons for such differences. I will argue that they reflected, in particular, the relatively weak position of physicians in the medical marketplace and the resulting need to adapt to the medical world of their patients.

Concepts of Disease

Early modern medical theory has frequently been described as being based on a holistic view of the human body and, in particular, on notions of an imbalance of the natural humours (blood, yellow and black bile, and phlegm) and their associated primary qualities (warm, cold, dry, and moist). In this light, one of the first striking features of many diagnostic judgments and expressions Handsch recorded is a very pronounced tendency to localise disease processes. He and his mentors and colleagues ascribed most diseases to specific organs, even in the many cases in which patients reported complaints in various parts of the body or indeed, as in fevers, all over it. In principle, every vital organ could be affected. General bodily languor could indicate a weak heart; according to a long-standing theory, the heart was the source of the hot vital spirits that vivified the body. The spleen could be obstructed, the brain overburdened with fluid, the kidneys too weak.¹² Mental disturbances were attributed to the head and brain.¹³

¹² ÖNB, Cod. 11206, fol. 39v: 'Es ist ein Schwachheit der Nieren'.

¹³ *Ibid.*, fol. 38v: 'Es ligt ir im Haupt'. Similarly *ibid.*, 180r: 'Sie ist im Kopff verworren, unrichtig'. In German quotations, I have modernised the capitalisation and used 'v' and 'u' according to modern spelling (eg. 'und' rather than 'vnd').

Two organs, however, stand out and dominate most of the physicians' oral explanations: the stomach and the liver. In the large majority of cases, they were taken to be involved. This is not surprising if we consider the crucial role Galenic physiology traditionally ascribed to these organs. The stomach and the liver were the principal sites where food and drink were digested and, quite literally, assimilated, ie. made similar to the body's substance. With food and drink, all kinds of strange matter constantly entered the body. Much of it was useless or outright harmful and had to be evacuated by excretion. The useful parts had to undergo a thorough transformation from raw, crude matter into nutritious blood that could eventually turn into flesh. According to the Galenic tradition, this transformation proceeded in three steps.¹⁴ First the stomach separated the coarse useless matter and excreted it into the intestines while it literally cooked the rest, just like a kitchen stove. In the process, it transformed the raw, crude food into chyle that was already somewhat more similar to the body's substance. The chyle reached the liver, where the second step of digestion, or rather concoction, took place, the transformation of chyle into nutritious blood. From the liver the warm, nutritious blood flowed to the various parts of the body, which each extracted and assimilated what it could use. The rest was excreted via sweat or urine.

In the light of these time-honoured ideas, the outstanding importance of the stomach and the liver for the preservation of health and the genesis of diseases is obvious. The stomach, in particular, as the first link in the chain, played a key role. When it was too weak, or overburdened, or its heat insufficient to cook the food thoroughly, this inevitably had a profound and pervasive impact on the whole body. Instead of useful chyle, the stomach generated cold, viscous phlegm or mucus and other raw, crude matter. Accumulating in the stomach and glued to its walls,¹⁵ this moist, sticky matter inaugurated a vicious circle by further cooling and weakening the stomach and making it even less capable of concocting incoming food adequately.

This was precisely the message Handsch and the physicians in his circle constantly communicated to patients and bystanders. Phrases like 'the stomach does not have its natural digestion',¹⁶ or 'his stomach is full of mucus', or quite simply 'she has an evil stomach'¹⁷ recur and are often linked to other complaints said to result from this. To the sick Frau von Schwannberg, for example, Handsch said 'you have a weak, poorly digesting stomach, which turns food and drink mostly into fluxes and mucus'. This matter, he explained, settled in different parts of the body and produced, amongst others, sand and stones in the kidneys, impurities in the uterus and fluxes in her feet.¹⁸ We find the same ideas expressed in a handwritten *Formula loquendi vulgariter in iudicio urinali* written a few decades earlier by the physician and cleric Dr Michael Braun. As the title indicates, it offered manners of speech by means of which uroscopists could conveniently

¹⁴ See eg. Giovanni Battista da Monte, *Lectiones de urinis*, Franciscus Emericus (ed.) (Vienna: E. Aquila, 1552), [A1]; cf. Galen, *On the Usefulness of Parts*, M.T. May (trans.) (Ithaca, NY: Cornell University Press, 1968).

¹⁵ The notion of mucus and other matter 'glueing' to the walls or vessels recurs quite a number of times in Handsch's notes; sometimes he compared this matter with the glue used for wood (eg. ÖNB, Cod. 11206, fol. 129r).

¹⁶ ÖNB, Cod. 11206, fol. 126v: 'Der Magen hat nicht sein natürliche Dewung'.

¹⁷ *Ibid.*, fol. 21v. Similarly, the sick wife of a guardsman was told by her brother, a pharmacist, that her blood was full of mucus (*ibid.*, fol. 38r): 'Das Geblüt ist verschleimpt'.

¹⁸ *Ibid.*, fol. 33r.

communicate the nature of the patient's disease and its causes in vernacular German.¹⁹ 'Dear friend', the reader was advised to say, for example,

as the urine shows me, the person's disease comes above all from and is based in the stomach, where a lot of slime has accumulated and settled in the folds [?]. This is why the stomach is upset and cannot digest or turn food into nutrition for the body. . . . Also, food is not turned into good humours but only into slime and waste.²⁰

Similarly, an 'empiric' in Leipa whom Handsch's stepmother consulted during her pregnancy, concluded that her stomach was full of mucus ('verschleimpt').²¹ The patients shared these ideas. Adam Bohdanski, for example, had a strange taste in his mouth and his stomach felt awful. He thought his stomach was cold and he asked Handsch for a warming ointment to apply to the stomach area – a wish with which Handsch immediately complied.²²

Understandably, given their proximity and their crucial place in the process of digestion, disorders of the stomach were frequently associated with disturbances in the liver. Sometimes the physician might simply say that both were so weakened and corrupted that everything was turned into mucus and evil humour.²³ Obviously, when the stomach supplied the liver with crude, insufficiently concocted chyle, it made the liver's task of producing good blood from it more arduous. The patients shared these ideas: 'I believe this much that the principal cause of all my ailments is evil digestion, stomach, and liver', sick Christoph Hasenstein wrote in a letter. 'All my food, which should be turned into blood, is transformed into mucus and phlegm, and such phlegm trails through my whole body and into all the parts instead of the blood, hence an unnatural heat in the liver, the kidneys and similar parts arises'.²⁴

Furthermore, the viscous matter resulting from insufficient concoction threatened to block the pathways in the liver itself. 'Your whole disease comes from the stomach', Handsch explained to one patient. Inadequate digestion not only caused the patient to lose weight but also led to an 'obstruction of the liver'.²⁵ When he found that the Archduke's mother-in-law suffered from 'rawness in the stomach with a febrile disposition', he likewise told her: 'the liver is obstructed, cannot accept the food from the stomach, does not let it through, leaving it stuck in the stomach'.²⁶ 'You are obstructed between the stomach and the liver', one of Handsch's colleagues, Dr Kunstat, told a sick Habsburg captain.²⁷ In 1573, the famous French physician Saporta offered a similar, though more detailed written explanation in a letter to a noble female patient, telling her that her stomach did not cook the food and that her liver produced only cold, watery, windy and mucous blood. It made

¹⁹ Bayerische Staatsbibliothek, Munich (henceforth: BSB), Clm 25087, fols. 5v–6r; the author is only indicated as a doctor 'Micha Braun', a 'plebanus' from Krems. There can hardly be any doubt that this is the physician Michael Braun who moved to Krems in 1526 to serve as a priest (a *plebanus* is a kind of priest) but continued to practise medicine and apparently died two years later; cf. Theodor Wiedemann, *Geschichte der Reformation und Gegenreformation im Lande unter der Enns*, Vol. 3: *Die reformatorische Bewegung im Bisthume Passau* (Prague: F. Tempsky, 1882), 60.

²⁰ *Ibid.*, fols. 5v–6r; the meaning of the original term 'feld', translated here as 'folds' (for 'Falten'), is not entirely certain.

²¹ ÖNB, Cod. 11205, fol. 124r; he also found an 'obstruction' and that she did not menstruate.

²² ÖNB, Cod. 11183, fol. 96r.

²³ ÖNB, Cod. 11206, fol. 172v: 'Der Magen und die Leber ist dermassen geschwecht und verterbt, das alles was er isset, in einen Schleim und böse Feuchtickeit verkert wirt'.

²⁴ *Ibid.*, fols 17v–18r, letter, copied by Handsch, without giving the date.

²⁵ *Ibid.*, fol. 23v.

²⁶ *Ibid.*, fol. 20v.

²⁷ *Ibid.*, fol. 25r; ÖNB, Cod. 11205, fol. 195v.

her legs swell, while the warmer and more subtle parts, due to obstructions in the liver itself, rose to the head and reddened her face.²⁸ Non-academic healers resorted to the same concept. Thus, according to Handsch's notes, the pharmacist Balthasar, who also treated patients on his own, commented on a patient's urine saying that it showed crudeness and obstructions in the liver.²⁹

Sometimes the liver was the principal culprit in its own right. A Dutch doctor had told him, reported one patient, that his whole disease was due to the liver, which was too cold and unable to produce good blood.³⁰ In the case of a girl from Rott, Handsch even proclaimed the liver to be the ultimate cause of the poor digestion in the stomach. Placed underneath the stomach he explained, it was the liver's task to supply the stomach with heat, like a coal fire underneath a pot. Because the liver was too feeble, however, the heat in the stomach was too weak and most of the food turned into mucus rather than nutritious blood, making the girl's feet and belly swell.³¹ Occasionally, the liver could also be too hot, its fire too strong. In this case, the blood that issued from the liver was excessively hot and the patient might suffer from a fever. An Italian physician told the feverish Johann Georg, for example, that he had overheated his liver and that the same heat had affected the blood, from which a fever had arisen.³² Sometimes a cold stomach and an excessively hot stomach combined.³³ 'I have an evil, cold stomach and a heated liver', a sick chancellor said about himself.³⁴ More rarely, physicians suspected other pathological changes in the liver, such as a contraction of the liver itself.³⁵ The physician might even claim that the liver had been literally consumed, that it had shrunk to the size of a chicken egg or, indeed, of a walnut.³⁶

As some of these quotations already indicate, the consequences of a sick stomach or liver (or both) and of the ensuing insufficient concoction of food were manifold. An immediate effect was that the body did not receive sufficient amounts of nutritious blood. He had 'no good blood in his body', Handsch explained to a patient from the countryside. Filled with mucus, obstructed and corrupted, his stomach could not digest what he ate. His food was of little use to him and as a result, his body became weaker and weaker.³⁷ Another major consequence were fluxes, ie. local accumulations of crude or otherwise morbid, harmful matter. Fluxes ranked among the most widely reported complaints, and the notion was apparently very familiar to the patients. To quote just two examples: when a young church musician, whom Handsch suspected of suffering from the French disease, had a headache that was mostly on one side only, the patient thought he had 'fluxes',³⁸ and a young merchant complained of 'fluxes' that woke him up at night.³⁹

²⁸ Sächsische Landesbibliothek Dresden, ms 337, 14. The letter is written in Latin but addresses the patient directly; since this is a collection of copied letters and *consilia* and not the original letter, it may have been translated from French into Latin.

²⁹ ÖNB, Cod. 11206, fol. 27r–v. Presumably, this was the archducal apothecary Balthasar Klössl who is frequently mentioned in Handsch's notes.

³⁰ *Ibid.*, fol. 17v.

³¹ *Ibid.*, fol. 39v.

³² *Ibid.*, fol. 23v.

³³ ÖNB, Cod. 11205, fol. 195r.

³⁴ ÖNB, Cod. 11206, fol. 23r.

³⁵ *Ibid.*, fol. 21v, D. Phaedrus to a sick young woman.

³⁶ *Ibid.*, fol. 14v.

³⁷ *Ibid.*, fols 16v–17r.

³⁸ ÖNB, Cod. 11183, fol. 76v; similarly, a young servant with pain in the left side of his face told Handsch he thought it was a 'flux' (*ibid.*, fol. 344r).

³⁹ ÖNB, Cod. 11205, fol. 102v, letter by a young merchant by the name of Martin, c.1555.

A particularly common type of flux was what the medical textbooks called ‘catarrh’ – from the Greek words ‘kata’ for ‘down’ and ‘rrheo’ for ‘flow’. The physicians commonly attributed it to watery, mucous or corrupt matter that had accumulated in the head. ‘The fluxes fall off from his head’, Handsch remarked on a hunter from Lichtenstein, ‘[they] have settled in the chest, make his breathing tight’.⁴⁰ Fluxes were a seemingly obvious and frequently cited cause of painful swelling in the limbs and joints.⁴¹ Fluxes could also settle, for example, on the liver. ‘She has a large blister or bladder on the liver’, Handsch explained a female patient’s dangerous state, and ‘if it ruptures, she will die’.⁴² Patients might also develop ‘an ulcer between the lung and the liver’, as he suggested in another case.⁴³ Fluxes could even encroach upon the heart,⁴⁴ or settle in the vessels. Adhering like glue or tar pitch to their walls, they corrupted the surrounding fluid and, like lime-scale in a water pipe, hindered the natural course of the blood.⁴⁵ Along similar lines, physicians attributed obstructions in the vessels to tartar, ie. the accretions that formed in wine-barrels, a concept Paracelsians began to make popular at the time. According to Mathias Zobell, his physician, Dr Willebroch, quite literally attributed the tartar in his body to excessive wine consumption: from the overburdened stomach, Willebroch explained to the patient, the wine reached the liver and the vessels in an undigested state and hardened there into tartar.⁴⁶

When the natural flow of the blood and humours was affected in this manner or, more frequently, by the viscous matter resulting from incomplete concoction, this had serious consequences. ‘Obstructions’ were widely known and feared by physicians and lay-people alike, especially when they affected the natural excretions. ‘You can use this term [obstruction] in many ways’, Handsch noted, namely for the liver, the spleen, the vessels, and the blood itself.⁴⁷ Handsch also recorded other expressions that might be suitable in this case: ‘The blood is polluted, corrupted, filled with mucus, obstructed, [it] does not have its natural course’, or ‘it is stuck and compressed in the vessels like water in a pipe’. Or: ‘the blood has no free path, everything is torment and angst. The nutrition cannot get through, cannot serve the body’.⁴⁸ Or: ‘The blood has no free path, it is obstructed, full of mucus [“verschleimpt”], polluted’.⁴⁹ Just as water could not get through when dung or dirt settled in a water pipe, Handsch explained to his sick landlord, the blood could not move freely in his vessels. ‘It works in order to get through, so you must suffer in the body’.⁵⁰

The comparison of morbid matter with dung and dirt was by no means accidental. In the overwhelming majority of cases, as some of the quotations have already indicated,

⁴⁰ ÖNB, Cod. 11206, fol. 21v; similarly *ibid.*, fol. 22r: ‘Es sindt Flüsse. Yr habt ein flüssigen Kopff. Kalte und schwere Flüsse seczen sich herab’ (‘These are fluxes. You have a fluid head. Cold and heavy fluxes are descending’).

⁴¹ *Ibid.*, fol. 151r.

⁴² *Ibid.*, fol. 14v.

⁴³ *Ibid.*, fol. 14v.

⁴⁴ *Ibid.*, fol. 183v: ‘Das Hercz ist von Flüssen bedrengt’.

⁴⁵ *Ibid.*, fols 26v–27r.

⁴⁶ *Ibid.*, fol. 146v.

⁴⁷ *Ibid.*, fol. 23v.

⁴⁸ *Ibid.*, fols 23v–24r: ‘Das Geblüt ist verunreinigt, verterbt, verschleimpt, verstopft, hat seinen natürlichen Gang nicht, steckt und engstiget sich in dem Geäder wie ein Wasser in der Roren’. The German term ‘engstiget sich’ is closely related to ‘angst’ but, at the time, also evoked the more literal, physical meaning of ‘eng’ (‘narrow’; cf. the Latin ‘angustus’ for ‘narrow’), ie. of a feeling of compression in the chest.

⁴⁹ *Ibid.*, fol. 20v.

⁵⁰ *Ibid.*, fols 26v–27r: ‘so arbeitet es zum Durchdringen, das ir must Beschwernüß im Leib empfinden’.

notions of dirt, pollution and contamination, of a putrefaction and corruption of foreign matter were at stake. Expressions of this kind are indeed ubiquitous in Handsch's notes. Sometimes the whole body was declared full of dirt or refuse. In this case, the patient's state could be described (presumably to the family rather than to the patient directly) in terms like 'he is putrefying inside',⁵¹ or 'he is putrid inside, a living carcass'.⁵² More frequently, the physicians specified the site of corruption and decay, as in 'his lungs and liver are rotting',⁵³ 'the liver is turning into slurry',⁵⁴ 'his liver is half rotten',⁵⁵ 'his spleen is soiled',⁵⁶ or 'a foul mucus is lying in his stomach'.⁵⁷ One could attribute diseases to 'scum ["Abschaum"] from the spleen, the kidney, the liver etc.', Handsch noted.⁵⁸ One could say that the 'water', i.e. the urine, 'shows that the person has an impure stomach, no appetite'.⁵⁹ 'The uterus is soiled and full of mucus', Handsch commented on a patient's urine that someone had brought to him.⁶⁰ Along the same lines, Michael Braun in his *Formula loquendi vulgariter* suggested that one could add, with female patients, that there was 'some impurity of the uterus', which had accumulated over a long time.⁶¹

Furthermore, when digestion was weak, vapours could easily arise from the dirt or rot in the blood or in a certain part or organ. As Handsch put it, for example: 'The stomach does not digest well, hence obstructed ["verstopfft"] blood comes into the vessels and where it arrives, there is pain, and vapours ascend'.⁶² From the patient's uterus, Handsch added to his uroscopic judgment on a sick woman, 'evil vapours ascend and inflate the heart, the stomach, the head'.⁶³ 'The uterus is filling with evil blood and evil vapours', another entry reads.⁶⁴ According to Braun's *Formula loquendi vulgariter* one could compare this production of vapours with the steam rising from dung-heaps in the mornings.⁶⁵ Vapours could also move around in the stomach.⁶⁶ Gallus warned a patient with wandering pain around the stomach: 'There is an indigestion, i.e. crudity [and] if it is not removed, it will inflate and it is to be feared that something worse may come from it'.⁶⁷ Handsch even attributed a patient's chest pain to wind that, in turn, resulted from catarrh, i.e. from a flux that had fallen from above.⁶⁸

Occasionally, such vapours could resemble darkish fumes. According to Handsch, one could illustrate this by analogy with the smoke that arose from a fire that was not hot

⁵¹ *Ibid.*, fol. 20r.

⁵² *Ibid.*, fol. 170r; similarly *ibid.*, fol. 114r: 'He is all putrid inside'.

⁵³ *Ibid.*, fol. 14v: 'Lung und Leber faulet ym'.

⁵⁴ *Ibid.*, fol. 126v: 'Die Leber veriaucht'.

⁵⁵ *Ibid.*, fol. 114r: 'Die Leber ist ym halbfaul'. Similarly *ibid.*, 168v, to be pronounced after a patient's death: 'His liver was rotten. You cannot make a rotten egg fresh again'. In almost identical terms, an empiric in Leipa said to Handsch's brother-in-law Heinrich (ÖNB, Cod. 11205, fol. 196v): 'lung and liver are putrefying'.

⁵⁶ ÖNB, Cod. 11206, fol. 22v: 'Die Milcz ist im verunreiniget'.

⁵⁷ *Ibid.*, fol. 23v: 'Ein fauler Schleim ligt im im Magen'.

⁵⁸ *Ibid.*, fol. 22v.

⁵⁹ *Ibid.*, fol. 25r.

⁶⁰ *Ibid.*, fol. 35v.

⁶¹ BSB, Clm 25087.

⁶² ÖNB, Cod. 11183, fol. 41: '[D]er magen der deuet nicht wol, darumb kompt verstopfft Blut ynn das Geeder, unnd wo es also hinkomet, da thut es wehe, unnd steigen auch Dempff auff'.

⁶³ ÖNB, Cod. 11206, fol. 35v.

⁶⁴ *Ibid.*, fol. 20v.

⁶⁵ BSB, Clm 25087.

⁶⁶ ÖNB, Cod. 11206, fol. 22r.

⁶⁷ *Ibid.*, fols 16r-v.

⁶⁸ *Ibid.*, fol. 26r.

enough to consume the wood completely.⁶⁹ ‘Your blood is like the impure oil of a lamp: it does not burn so clear’, he noted in other places, ‘it burns darkly’.⁷⁰ Sometimes these vapours or fumes might be described as relatively hot. Andreas Gallus advised Handsch’s great-aunt to avoid external heat as well as excessive worries because otherwise ‘inward fire’ would rise towards her head.⁷¹ However, even hot vapours could ultimately arise from cold, slimy, insufficiently concocted matter and other impurities when they accumulated in a certain part. In this case, the patient might hear: ‘The mucus is stuck in the vessels; when it gets hot, the vapours ascend to the head’.⁷² Handsch noted a number of expressions that were applicable to or had been used in similar situations: ‘When the mucus inflates itself, wind arises, which expands the intestines’⁷³ or ‘There is a crude humour, indigestion, superfluity, which fumes [“dempfft”] into the head’.⁷⁴ One could also state somewhat more elaborately that the uterus, the stomach or another organ was full of mucus and when this mucus got hot, fumes would ascend to the heart, enfeebling it, as well as to the chest and the head; the loins and thighs could suffer as well.⁷⁵ Ulrich Lehner, Handsch’s first medical teacher in Prague, explained a sick woman’s hard breathing, languor and vertigo as all resulting from vapours ascending from the uterus.⁷⁶ The patients seem to have been familiar with the notion of vapours and fumes. According to Handsch, the Archduke himself used the term ‘fliegende Dempffe’, ie. ‘flying vapours’, which at certain times affected his heart, at others his head.⁷⁷ We also quite frequently find the notion in epistolary consultations written by patients or their families.⁷⁸

Other kinds of pathology, according to Handsch’s notes, played a much less prominent role in the oral communication between physicians and patients. The physicians might tell a patient that he or she suffered from ‘a wild blood’,⁷⁹ or he could attribute a quick pulse to the fact that the heart was overburdened with excessive unnatural heat.⁸⁰ He could warn the patient that his or her liver had hardened⁸¹ or that the stomach was rigid and dry like leather.⁸²

Oral Communication and Textbook Knowledge

How do the notions and explanatory models that Handsch and other professional healers communicated to the patients and their families compare with those we find in contemporary learned writing? The question is not easy to answer. Learned medicine was

⁶⁹ *Ibid.*, fol. 28v: ‘Nota Der Magen dewet nicht wol, wo das Feuer im Ofen nicht starck genug ist, das Holtz zuverzeren, so gibt es grossen Rauch, also auch dempffet es aus dem Magen ins Haupt, wenn die naturliche Werme im Magen schwach ist, und ubel dewet’.

⁷⁰ *Ibid.*, fols 25v and 128v.

⁷¹ *Ibid.*, fol. 25v: ‘ynwendigen Brünste’; Gallus’ name is not explicitly mentioned but when Handsch referred to a physician simply as ‘he’ in this manuscript he usually meant his teacher Gallus.

⁷² *Ibid.*, fol. 19r.

⁷³ *Ibid.*

⁷⁴ *Ibid.*, fol. 19v.

⁷⁵ *Ibid.*, fol. 23r.

⁷⁶ *Ibid.*, fol. 30r: ‘Von der Mutter kommen yr Dempffe kegen der Brust, Hertz, schweren Athem, Matigkeit, yns Haupt, wie eyn Schwindelt’.

⁷⁷ *Ibid.*, fol. 19v.

⁷⁸ Stolberg, *Experiencing illness*, *op. cit.* (note 1), 164–78.

⁷⁹ ÖNB, Cod. 11206, fol. 28v: ‘Es ist ein wilde Geblütt’.

⁸⁰ *Ibid.*, fol. 129v.

⁸¹ *Ibid.*, fol. 132v.

⁸² *Ibid.*, fol. 133r.

somewhat heterogeneous in itself, and it is difficult to assess to what degree the often quite complex theories and concepts we find in learned medical textbooks informed ordinary practice.⁸³ Published case histories, the numerous medical *curaciones*, *observaciones* and *consilia*, which became increasingly popular from the late Middle Ages,⁸⁴ come closer to actual practice, but even they are not necessarily representative. They tended to cover the whole range of diseases – including and often even focusing on particularly rare ones – and they often served quite unabashedly to show off the physician's particular expertise and his skill in arriving at an unexpected explanation. Negative outcomes are rare and diagnostic or therapeutic errors on the physician's part virtually non-existent. Some preliminary conclusions are nevertheless possible.

A major common feature of textbook theory, published *consilia* and other casuistic accounts, on the one hand, and the notions that learned physicians communicated orally to patients and families on the other, was the pervasive interest in proximate causes, in the underlying pathological processes inside the body. As we have seen, the physicians, in their personal encounters with patients and families, frequently provided remarkably sophisticated accounts of the presumable cause of the disease and the rationale of their treatment. By all appearances, this was what patients and families expected. Irregular healers, too, according to the little evidence that survives in court records and similar sources, offered quite complex causal explanations. In eighteenth-century Southern Germany, for example, a blacksmith concluded, just from examining a woman's urine, that she suffered from

a cooling of the blood with putrefaction of the humours, an accumulation of mucus in the kidneys and of sharp matter in the bladder, as well as an obstruction in the spine, together with back pain and flying heats in the blood, disrupted sleep and swelling of stomach and intestines.⁸⁵

When we look more closely at the concepts and images that the physicians and other healers communicated to patients and families some striking differences emerge, however. A first discrepancy is the limited degree to which learned physicians adapted their diagnosis and treatment to the individual patient. In their publications and in their epistolary consultations, they prided themselves of their ability to judge cases on a very individual basis and to tailor their treatment accordingly. In diagnosing and treating patients, the skilled physician had to take the individual constitution and predisposition into account as well as the non-naturals, such as food and drink, sleep, exercise and the passions, air and other external factors.

⁸³ See for the late Middle Ages, Danielle Jacquart, 'Theory, Everyday Practice, and Three Fifteenth-Century Physicians', *Osiris*, 6 (1990), 140–60.

⁸⁴ Major collections that reflect mid-sixteenth-century practice (though primarily in northern Italy) are those by Amatus Lusitanus, starting with his *Curatationum medicinalium centuria prima, multiplici variaque rerum cognitione referta* (Florence: Torrentinus, 1551), Giovanni Battista da Monte, *Consilia medica omnia, quae ullibi extant, partim antea, partim nunc primum edita*. G. Donzellini (ed.) (Nuremberg: Montanus and Neuberus, 1559) and Vettore Trincavelli, *Consilia medica* (Basle: Waldkirch, 1587); on the genre see Michael Stolberg, 'Formen und Funktionen ärztlicher Fallbeobachtungen in der Frühen Neuzeit (1500–1800)', in J. Süßmann, S. Scholz and G. Engel (eds), *Fallstudien: Theorie – Geschichte – Methode* (Berlin: trafo, 2007), 81–95; Gianna Pomata, 'Sharing Cases: The *Observationes* in Early Modern Medicine', *Early Science and Medicine*, 15 (2010), 193–236; and Pomata 'Observation Rising: Birth of an Epistemic Genre, 1500–1600', in L. Daston and E. Lunbeck (eds) *Histories of Scientific Observation* (Chicago and London: University of Chicago Press, 2011), 45–80.

⁸⁵ Stadtarchiv Schwäbisch Hall, Best. 11, 84 (1784); upon the request of the woman's mother, who suspected a pregnancy, the blacksmith exceptionally recorded his diagnosis on a little slip of paper.

In Handsch's vernacular notes, by contrast, it is quite rare to find a remark like 'his disease comes from anger',⁸⁶ or the general advice to say, when appropriate, that the disease in question came from 'disorderly eating and drinking' or from worries, wrath and other passions of the soul.⁸⁷ When the non-naturals were mentioned at all, they were usually linked to concrete pathological effects, as in 'he has eaten too much, overburdened the stomach',⁸⁸ or 'excessively cold food makes the stomach unfit',⁸⁹ or 'the blood is heated, inflamed, burnt, corrupted from excessive drinking',⁹⁰ or 'sadness changes the blood'.⁹¹

A second difference – and a particularly surprising one in the light of common assumptions about the basics of early modern medical theory – concerns the concepts that the physicians used to explain the actual disease process to patients and bystanders. Early modern medicine continues to be widely seen and described as attributing diseases, as medieval physicians commonly did, to an imbalance of the four natural humours (blood, yellow and black bile and phlegm) and/or their associated primary qualities (warm, cold, moist and dry) with treatment aiming at restoring the original balance.⁹²

As we have seen, Handsch and the physicians in his circle, by contrast, located most diseases in individual parts of the body and attributed them to crude, corrupted, putrid, viscous or sharp humours, which resulted, in turn, above all, from the insufficient (and sometimes also excessive) cooking of food in the body. Very occasionally only, they blamed an excess amount of one specific natural humour, and even then they assumed a pathological accumulation or stagnation of that humour in a specific part of the body, for example of blood in the head or yellow bile in the stomach.⁹³ Somewhat more commonly, they held a pathological alteration of a natural humour responsible. 'He has thick bile in his stomach', Peter Beyer said about a patient, 'it causes fire [and] heat and takes away the appetite'.⁹⁴ Similarly, a 'medicus Theophrasticus', ie. presumably a Paracelsian, remarked, on the case of the sick Tucher: 'The bile is corrupted and can no longer serve the liver, it corrupts the liver and the blood and you have no good blood in your body'.⁹⁵

Likewise, excessive heat or cold were sometimes cited as causes of disease, but again this was described almost as exclusively as a local process, limited to a specific part of the body, and the notion of an equilibrium hardly played a role at all. When physicians described the stomach as too cold, they evoked the image of a weak fire or flame that

⁸⁶ ÖNB, Cod. 11206, fol. 182v: 'Sein Kranckheit kompt im von Unmutt'.

⁸⁷ *Ibid.*, fol. 119r; similarly *ibid.*, fol. 125r.

⁸⁸ *Ibid.*, fol. 171r: 'Er hat sich übergessen: Den Magen überladen'.

⁸⁹ *Ibid.*, fol. 172r: 'Kalt Speiß essen macht ein ungeschickten Magen'.

⁹⁰ *Ibid.*, fol. 185v.

⁹¹ *Ibid.*, fol. 170v: 'Trawrickeit macht Verenderung im Geblütt'.

⁹² For a more nuanced account see Andrew Wear, 'Popularized Ideas of Health and Illness in Seventeenth-Century France', *Seventeenth Century French Studies*, 8 (1986), 229–42, and Wear, *Knowledge and Practice in English Medicine. 1550–1680* (Cambridge: Cambridge University Press, 2000). On the central place of the concept of humoral balance in medieval medicine see Nancy Siraisi, *Taddeo Alderotti and His Pupils: Two Generations of Italian Medical Learning* (Princeton, NJ: Princeton University Press, 1981), 205; on shifting Renaissance concepts see Ian Maclean, *Logic, Signs and Nature in the Renaissance: The Case of Learned Medicine* (Cambridge: Cambridge University Press, 2002), 259–69; Maclean found that according to learned Galenists all disease 'corresponds to asymmetric or unbalanced states of the body', and more precisely to an 'imbalance of humours', the 'mala compositio' of individual organs, or a traumatic 'solutio continuitatis' (*ibid.*, 260).

⁹³ ÖNB, Cod. 11206, fol. 177r: 'Die Gall ist im in Magen gangen'.

⁹⁴ *Ibid.*, fol. 23r; similarly *ibid.*, fol. 28r: 'A thick bile is stuck in the stomach'.

⁹⁵ *Ibid.*, fol. 15r–v.

could not adequately concoct the crude, cold, moist food. A similar imagery of fire rather than just elementary warmth pervaded other expressions. Warm by its very nature, the liver in turn could be said to have become so hot that it burnt the humours. Heartburn was quite literally attributed to fire in the heart.⁹⁶ Even when he exceptionally assumed the whole body to be affected by excessive heat, Handsch noted expressions like 'gantz verbrandt', that is, 'all burnt', suggesting a destructive fire rather than an imbalance.⁹⁷

In other words, in their oral communication with patients and families, the physicians relied on fundamental concepts of humoral pathology but resorted only to a very limited degree to the notion of an imbalance of humours and qualities. They focused on putrid, sharp or otherwise pathological humours (and vapours) and more generally on impurity and corruption inside the body. As a result, rather than seeking to restore a natural balance, they used any available means to evacuate the morbid matter. If necessary they even cauterised the skin with a hot iron or made the patients go for weeks and months with a festering sore they produced artificially by pulling horse's hair through a skin fold.

By all appearances, Handsch and the physicians in his circle were not at all exceptional in their focus on impurity rather than imbalance. A more detailed and systematic analysis of physicians' actual practice still needs to be done but a preliminary survey of published medical *observationes*, and *consilia* from this period⁹⁸ yields a very similar impression. Their authors explained most diseases as resulting from sharp, corrupted, crude or otherwise morbid humours and vapours, local obstructions, the suppression of natural excretions and other processes very similar to the ones we encounter in Handsch's notes.⁹⁹

A third striking difference regards the place of disease terms. They played a prominent part in contemporary medical writing and textbooks on medical practice and collections of medical *observationes* and *consilia* were often organised by names of diseases. In Handsch's notebooks, we find numerous (Latin) entries that carry specific disease terms as a heading, and disease terms figure prominently in the indexes he compiled for some of his manuscript volumes. By contrast, in the hundreds of entries that document real or anticipated verbal exchanges with patients and families, names of diseases hardly play a role at all. Except for the generic 'fever', which stood somewhere between symptom and disease,¹⁰⁰ there are only few entries that mention a specific disease term that was communicated to the patients or their families, as in 'he has got an internal cancer',¹⁰¹ or 'he has the icterus ["Geelsucht"] in the stomach, the stomach does not want to accept anything',¹⁰² or 'dropsy is fighting with him'.¹⁰³

⁹⁶ *Ibid.*, fol. 184v.

⁹⁷ ÖNB, Cod. 11205, fol. 196v.

⁹⁸ Trincavelli, *Consilia*, *op. cit.* (note 85); da Monte, *Consilia*, *op. cit.* (note 85).

⁹⁹ For similar findings in 17th-century Bologna see Pomata, *Contracting a Cure: Patients, Healers and the Law in Early Modern Bologna* (Baltimore: Johns Hopkins University Press, 1998); in the 18th century, obstructions still played a major role in the case histories of female patients who consulted the German physician Johann Storch (Barbara Duden, *The Woman Beneath the Skin: A Doctor's Patients in Eighteenth-Century Germany* (Cambridge, MA: Harvard University Press, 1991).

¹⁰⁰ Patients and relatives sometimes even attributed healing powers to a fever, perhaps because it tended to promote sweating and therefore presumably the evacuation of morbid matter.

¹⁰¹ ÖNB, Cod. 11206, fol. 16v.

¹⁰² *Ibid.*, fol. 21v.

¹⁰³ *Ibid.*, fol. 24v 'Die Wassersucht ringt mit im'.

Medical Knowledge and the Doctor–Patient Relationship

When we compare the ideas and explanations Handsch and the physicians in his circle communicated to patients and families with the disease concepts in the learned medical literature of the time, we thus find some overlap but also some remarkable differences. Physicians resorted only to a very limited set of concepts, while largely disregarding the notion of humoral imbalance and a whole range of other explanatory devices that played an important part in established textbook accounts. At the bedside and in the consultation room, they focused almost exclusively on identifying the morbid humour and the site and immediate causes of its genesis, rather than on naming the disease and identifying more remote causes such as the non-naturals. In this manner, the range of available explanatory concepts was drastically narrowed down to an almost exclusive focus on the failure of the stomach and the liver to concoct and assimilate food and drink and on the effects of crude, impure or corrupted matter which resulted from incomplete concoction, obstructions and local accumulations. How can we explain these differences between the notions on which physicians relied in their personal, verbal encounters with patients and families and the much wider range of concepts we find in contemporary learned writing?

Some years ago, British sociologist Nicholas Jewson, published two widely quoted papers on the impact of the early modern doctor–patient relationship on medical knowledge. He described this relationship as one based on ‘patronage’. The social, professional and financial standing of early modern university-trained physicians, he argued, and, in his case, more specifically that of English physicians in the eighteenth century, depended to a large degree on the favours of a small group of rich, upper-class patients. Due to their comparatively lower social status, physicians had to adapt their medical theories and their diagnostic and therapeutic practices to a large degree to the expectations and preferences of these rich and powerful patients. In particular, they had to accord ample space to the patient’s narrative and to convince him or her of their ability to tailor their diagnosis and treatment to the individual temperament and life-style. According to Jewson, this situation changed profoundly when the principal site of medical practice and medical research shifted from private practice to the hospital and the sick person ‘disappeared’ from medical cosmology.¹⁰⁴

Jewson’s argument has met with criticism on empirical grounds. His assumption that early modern physicians treated primarily rich, upper-class patients and that the doctor–patient relationship was characteristically one of ‘patronage’ no longer seems tenable – certainly not for large parts of the continent. Undoubtedly, most physicians preferred such lucrative, affluent patients but as the patients that Handsch and fellow physicians treated show, and as we know from the casebooks and medical observations of other early modern physicians,¹⁰⁵ they tended to treat patients from more or less all ranks of society. In spite of such empirical flaws, Jewson’s argument has proved very fruitful in raising historians’ awareness of the crucial role of patient power and its impact on the development of learned medical theory and practice. I would argue, in fact, the striking differences between

¹⁰⁴ Nicholas D. Jewson, ‘Medical Knowledge and the Patronage System in 18th Century England’, *Sociology*, 8 (1974), 369–85; Jewson, ‘The Disappearance of the Sick-Man from Medical Cosmology, 1770–1870’, *Sociology*, 10 (1976), 225–44.

¹⁰⁵ See, eg. the extensive collection of medical observations that the Dutch physician Pieter van Foreest published from the 1590s onwards (Pieter van Foreest, *Observationum et curationum medicinalium ac chirurgicarum opera omnia* (Frankfurt: Endter, 1660)) or the handwritten collection of cases by the Ulm physician Johannes Frank (1649–1725) (Stadtarchiv Ulm, H.Franc 8a and 8b).

established textbook accounts and what Handsch and the physicians around him said and did by the sickbed and in the consultation room, must be seen above all in this light. The relationship between the physician and his patient was not typically one of patronage but, in the early modern medical marketplace, patients did have considerable leverage, and for a simple reason: they had a choice. Certainly, in the major towns, where most university-trained physicians on the European continent practised at the time, they could consult different physicians as well as a wide range of non-academic healers, from barber-surgeons to itinerant drug-peddlers.¹⁰⁶ Even people with very modest financial means might ask a physician for advice but, if they were dissatisfied, they were likely to soon turn away again and try their luck with another physician or healer.

In this situation, it was of paramount importance for the physician's success, and indeed his economic survival, to acquire and maintain the patient's trust in his professional expertise, in general, and in the validity of his diagnostic and therapeutic judgment, in particular. Writers of medieval works on *De cautelis medicorum* had admonished their readers not to strive too much to please their patients and to gain the vain praise of the 'vulgus'.¹⁰⁷ They were to impress patients and families with terms like 'oppilatio' they would not understand. In actual practice, physicians found that this strategy was likely to backfire. Patients and families were not easily impressed by or, indeed, mistrusted words and explanations they did not understand.¹⁰⁸ Sixteenth-century physicians occasionally did use specialist disease terms at the patient's bedside. Christoph von Hassenstein, for example, learnt from his physician that his manifold complaints were due to a 'melancholia mirachalis et flatuosa'.¹⁰⁹ Yet, as Handsch's careful recording of useful vernacular expressions and Michael Braun's *Formula loquendi vulgariter* suggests, physicians accepted that they had to explain diseases in terms, concepts and images with which patients and bystanders were familiar.

Handsch sometimes even recorded how patients and families reacted to what he told them. He felt confirmed in having found the right words when a patient or relative later came back with money for the medicines Handsch had recommended.¹¹⁰ Sometimes he also added 'placuit' or 'non displicuit' to an entry, to indicate that a patient had been pleased or at least not displeased with what he had said. Presumably, he took this to mean that he could and should use the same expression with similar patients in the future.¹¹¹

Explaining the diagnosis and therapy in words the patients and their families understood was not enough. If physicians wanted to convince them of their superior knowledge and skill, they had to adapt their explanations, at least to some degree, to the vernacular medical

¹⁰⁶ See eg. Annemarie Kinzelbach, *Gesundbleiben, Krankwerden, Armsein in der frühneuzeitlichen Gesellschaft 1500–1700: Gesunde und Kranke in den Reichsstädten Ulm und Überlingen* (Stuttgart: Steiner, 1995); David Gentilcore, *Healers and Healing in Early Modern Italy* (Manchester: Manchester University Press, 1998); Laurence W.B. Brockliss and Colin Jones, *The Medical World of Early Modern France* (Oxford: Clarendon, 1997).

¹⁰⁷ Gabriele Zerbi, *Opus perutile de cautelis medicorum* (Venice?: NN, 1495). ch. 4.

¹⁰⁸ See Roger French, *Medicine Before Science: The Rational and Learned Doctor from the Middle Ages to the Enlightenment* (Cambridge: Cambridge University Press, 2003), especially his remarks on the 'medical marketplace', 118–22.

¹⁰⁹ ÖNB, Cod. 11205, fol. 172r, Handsch's copy of a letter by Chr. Hassenstein, c.1555; the attending physician was a certain D. 'Steffan' – possibly the Imperial physician Stephanus Laureus.

¹¹⁰ ÖNB, Cod. 11206, fols 17r, 35v and 39v.

¹¹¹ *Ibid.*, eg. fol. 39v and fol. 40r.

culture of their patients.¹¹² The terms, concepts and images they used had to make sense to ordinary people. Even a famous Paracelsian like Leonhard Thurneisser, personal physician to the Elector of Brandenburg, relied heavily on notions of impure humours and vapours in his epistolary consultations, adding only occasional references to Paracelsian notions such as the three principles salt, mercury and sulphur. His success proved him right – he became a rich man.¹¹³

A particularly striking illustration of the degree to which physicians like Handsch were prepared to come to terms with the medical ideas and preferences of their patients, is their interest in diseases and practices that did not figure in learned textbooks. Handsch recorded, for example, how the ‘dislocated’ [‘verrenkt’] belly button of infants was treated by pulling the skin energetically towards the back with both hands.¹¹⁴ He also took the belief in sympathetic healing seriously,¹¹⁵ recording, for example, how a certain Martha stopped the severe nose-bleed of Handsch’s own four-year old niece by tying the thumbs, toes, knees, wrists and elbows with red thread.¹¹⁶ He also repeatedly mentioned diseases from witchcraft. He noted the belief, for example, that a man would become impotent if a needle was stuck into his vest that had been used to sew the body of a dead person into cloth.¹¹⁷

Uroscopy is a good illustration of how successfully patients could insist on their own views and preferences, even against massive resistance on the physicians’ part. Throughout the early modern period and across all social divides, it was the most widely used and requested diagnostic procedure. When people fell sick they almost routinely had their urine examined. Just from a careful examination of the urine, frequently without seeing the patient and with little or no information on his or her complaints, the uroscopist was to identify the nature of the disease and prescribe the right treatment.¹¹⁸ In their published writings, early modern physicians criticised this practice harshly. They denounced their less learned competitors, who commonly offered such services, as ‘piss-prophets’ and ‘frauds’.¹¹⁹ In their actual practice, however, many academic physicians did not act much differently. They knew about the uncertainties of uroscopic diagnosis and prognosis and

¹¹² On the concept of ‘vernacular’ knowledge see Mary Fissell, *Vernacular Bodies: The Politics of Reproduction in Early Modern England* (Oxford: Oxford University Press, 2004); cf. also Pamela Smith, *The Body of the Artisan: Art and Experience in the Scientific Revolution* (Chicago and London: University of Chicago Press, 2004).

¹¹³ See Stolberg, *Experiencing illness*, *op. cit.* (note 1); Thurneisser’s correspondence with his patients has survived in a series of volumes in the Staatsbibliothek Berlin (in particular: ms germ. fol. 99, 420a, 420b, 421a, 422b, 423a, 423b, 424, 425 and 426).

¹¹⁴ ÖNB, Cod. 11205, fol. 117v.

¹¹⁵ On sixteenth-century physicians’ remarkable appreciation of the observations and practices of ordinary lay people and unlicensed healers see my forthcoming paper, Michael Stolberg, ‘Learning from the Common Folks: Academic Physicians and Medical Lay Culture in the Sixteenth Century’, *Social History of Medicine*, 27 (2014) (doi:10.1093/shm/hku035).

¹¹⁶ ÖNB, Cod. 11183, fol. 208v.

¹¹⁷ *Ibid.*, fol. 210r; on early modern love magic see Daniela Hacke, ‘Von der Wirkungsmächtigkeit des Heiligen: Magische Liebeszauberpraktiken und die religiöse Mentalität venezianischer Laien in der frühen Neuzeit’, *Historische Anthropologie*, 3 (2001), 311–32; for early modern physicians’ quite variable attitudes towards magic and witchcraft see Jonathan Seitz, *Witchcraft and the Inquisition in Early Modern Venice* (Oxford: Oxford University Press, 2011), 169–95.

¹¹⁸ Michael Stolberg, *Die Harnschau: Eine Kultur- und Alltagsgeschichte* (Cologne and Weimar: Böhlau, 2009); English edn forthcoming as *A Cultural History of Uroscopy, 1500–1800* (Aldershot: Ashgate, 2015).

¹¹⁹ See eg. Johannes Hornung, *De uroscopia fraudulenta discursus* (Herborn: N.N., 1611); James Hart, *The Arraignment of Urines, Wherein Are Set Downe the Manifold Errors and Abuses of Ignorant Urine-Monging Empirickes, Cozening Quacksalvers, Women-Physitians and the Like Stuffe* (London: Mylbourne, 1623).

about the risk of embarrassing errors. Yet they could not afford to create the impression that they had not mastered a diagnostic skill that patients valued highly and which even illiterate rural healers routinely performed to their patients' satisfaction.¹²⁰

Conclusion

As the case of uroscopy suggests, the need to accommodate the patients' views and expectations may even have had a profound influence, in turn, on the development of learned medicine, namely by counteracting attempts at innovation. The considerable success of 'chemical' medicine and the popularity of proprietary, 'secret' drugs show that there was some place for novelty, in ordinary medical practice, especially when it came to trying new medicines.¹²¹ Occasionally, even new diseases became 'fashionable', like 'scurvy' in the seventeenth and 'nervous diseases' in the eighteenth century.¹²² Regarding basic pathological concepts and diagnostic and therapeutic practices, however, historians have found a remarkable discrepancy between the rise and fall of new medical systems in early modern medicine and the growing attention to organic patho-anatomical changes, on the one hand, and physicians' continuing reliance on purging and bloodletting and even uroscopy, on the other.¹²³

Why did the attribution of diseases to impurity, to foreign, corrupt matter inside the body have such a powerful and lasting impact on pre-modern medical lay culture? Why did learned physicians, in spite of their growing reservations and new findings, remain attached to this framework and, at most, seek a new rationale for some of these practices, for bloodletting in particular?

Drawing on Mary Douglas' ground-breaking work,¹²⁴ one might be tempted to link the central place of impurity and contamination in pre-modern Western medical culture to notions of threatened cultural and national identity. The longevity of these notions under very different social, economic and political circumstances makes this type of interpretation problematic, however.

Another, almost disappointingly simple answer may well be much closer to the truth. We do not know the cultural context from which these beliefs originally emerged in ancient times and we find very different beliefs, focusing on the dangers of evacuation rather than its benefits, in other ancient cultures.¹²⁵ Once a medical belief system is firmly in place, however, it tends to be largely self-confirmatory. This was certainly the case with early modern medicine. From the perspective of modern biomedicine, purging and bloodletting

¹²⁰ Cf. Michael Stolberg, 'The Decline of Uroscopy in Early Modern Learned Medicine, 1500–1650', *Early Science and Medicine*, 12 (2007), 313–36.

¹²¹ Cf. William Eamon, *Science and the Secrets of Nature: Books of Secrets in Medieval and Early Modern Culture* (Princeton, NJ: Princeton University Press, 1994).

¹²² See eg. Maximilian Mayer, *Verständnis und Darstellung des Skorbutis im 17. Jahrhundert: Mit einer Edition und Übersetzung der Fallgeschichten zu 'Skorbut' bei Johannes Frank* (unpublished MD thesis, University of Würzburg, 2012), (<http://opus.bibliothek.uni-wuerzburg.de/frontdoor/index/index/docId/6241>); G.J. Barker-Benfield, *The Culture of Sensibility: Sex and Society in Eighteenth-Century Britain* (Chicago and London: University of Chicago Press, 1992).

¹²³ On the longevity of these notions see, in particular, Andrew Wear, 'Medical Practice in Late Seventeenth- and Early Eighteenth-Century England: Continuity and Union', in Wear, R.K. French and I.M. Lonie (eds), *The Medical Revolution of the Seventeenth Century* (Cambridge: Cambridge University Press, 1989), 294–320.

¹²⁴ Mary Douglas, *Purity and Danger: An Analysis of Concepts of Pollution and Taboo* (London: Routledge & Kegan, 1978).

¹²⁵ See eg. Shigehisa Kuriyama, *The Expressiveness of the Body and the Divergence of Greek and Chinese Medicine* (New York: Zone Books, 1999).

may make little sense in most diseases or are outright harmful. At the time, however, they constantly seemed to prove their beneficial effects. We must not forget: countless patients in the early modern period experienced at least a temporary improvement after bloodletting, purging and similar evacuative treatment – as most patients around the world do, no matter how they are treated. After all, many diseases – especially the very common contagious diseases – are largely self-limiting, and even in chronic diseases patients tend to experience intermittent improvements.

Understandably, when pre-modern patients got better, their physicians took this as evidence that the diagnosis had been correct and the evacuative treatment beneficial. On the other hand, when the treatment seemed to show no effect or, even worse, the patient died, this did not necessarily weaken the belief in the underlying medical concepts. One could easily attribute the poor outcome to the individual healer. His diagnosis had been wrong, his medicines inefficacious. The patients and their families did not need to question the prevailing interpretation of disease as such. They had to look for another, more skilful and knowledgeable healer. Apart from that, it was common wisdom that some diseases were outright incurable, and, as the physicians themselves liked to point out, one always had to reckon with God's unfathomable will.

Not only did the ultimately positive course of many diseases constantly seem to confirm the validity of these beliefs but negative outcomes did not arouse fundamental doubts. The prevailing diagnostic and therapeutic practices were endowed with powerful performative features in themselves that gave additional weight to the physicians' verbal explanations. In fact, in their ability to confirm and validate the underlying belief system by constant re-enactment, some early modern diagnostic and therapeutic practices share major features with religious rituals.¹²⁶

The central place of uroscopy in early modern medical diagnosis highlighted the crucial importance of fluids and evacuations for the understanding of the body's diseases. When the uroscopist examined the urine over several minutes, held the urine glass against the light or in front of mirror, carefully provoked a circular movement, let the sediment settle for a while, re-examined the urine and finally expressed his judgment, he impressively staged his ability to unveil the secrets of the human body by looking at an excretion that the body used to rid itself of impure, corrupt matter. The physicians commented their findings accordingly. Whenever you see a thick, coarse, impure urine or sediment, Handsch noted, tell the patient that his blood is the same.¹²⁷ The corruption and the stench that emanated from the fluid, especially once it had settled for a while, also left little doubt that it contained impure matter. Ask women, Handsch noted, to collect their urine for three days and to observe it. When the urine looks corrupted, dark and impure, tell them this impurity is in their blood. His own sister Sabina, he added, had called him to see that kind of change in her own urine.¹²⁸

On the diagnostic as well as on the therapeutic side, bloodletting – probably the most widely used single prophylactic and therapeutic measure far into the nineteenth century – was likewise deeply imbued with meaning. It offered the physicians and surgeons the opportunity to point out pathological changes that were otherwise not accessible to the human eye. According to Handsch, the physician could say, for example, that the blood

¹²⁶ See Clifford Geertz, 'Ritual and Social Change: A Javanese Example', in Geertz, *The Interpretation of Cultures: Selected Essays* (New York: Basic Books, 2000), 142–69.

¹²⁷ ÖNB, Cod. 11206, fol. 14r.

¹²⁸ *Ibid.*, fol. 32r.

was 'verstockt', ie. 'coagulated', or 'obstructed', 'corrupted', 'evil', or could easily have resulted in an 'aposteme'.¹²⁹ In other cases, he could declare the blood to be 'heavy' or, on a more positive note, that it was not watery, or 'not evil, only abundant' or somewhat fluid and slimy but not very much so, otherwise 'of good colour and substance, you can grow old with it'.¹³⁰

In a similar manner, the virtually ubiquitous use of laxatives, emetics and more drastic means of evacuation such as cauterising and artificially produced ulcers constantly underlined the paramount role of corrupt, morbid matter. 'For that reason, in order to help him', Handsch said to the brother of a patient from the countryside, 'one has to give him medicines, which empty, clean [and] fortify the stomach'.¹³¹ Because the fluxes 'polluted' his blood, he needed 'medicine that cleanses and purifies the blood', Handsch told the sick Gilemicz, recommending, in particular, syrups, that 'gradually guide the superfluous, evil fluid out of the body and consume it'.¹³² In the eyes of the patients and their families, purgatives amply demonstrated the curative power of medicines by their very tangible, visible effects. The stinking, slimy stools and vomit they provoked seemed to prove beyond doubt that such corrupt, putrid, slimy or crude humours abounded in the body and were the cause of their complaints.

Last but not least, the idea that diseases were due to crude, impure, corrupt or sharp matter may have been much closer to people's subjective bodily experience – including that of the physicians themselves – than, for example, the notion of a humoral imbalance or a pathological change in the very substance of one of the body's organs. Of course, people's experience of their bodies is in itself framed by their respective culture. The typical manifestations of many common diseases could easily be taken to offer ample evidence, however, that diseases were due to some foreign morbid matter. In many diseases, this kind of matter visibly issued forth from the body's orifices, by way of diarrhoea or vomit, as phlegm in catarrh and coughs, or as unappetising pus issuing forth from wounds, pustules or the genital orifices. And frequently patients eventually got better after a couple of days with diarrhoea or vomiting, after a rash had appeared on the skin, when a boil finally ruptured, when a loose cough promoted copious evacuation or, in fevers, once they started sweating.

As ethnographic surveys from the middle of the nineteenth century show, the belief that most diseases were due to impure, corrupted humours and were best treated by promoting evacuation was, at the time, still very widespread among the population. Ordinary people, the physicians complained, demanded above all drastic laxatives.¹³³ From this perspective, the truly intriguing question is not so much how this deeply rooted, coherent and largely self-confirmatory medical system could remain dominant over centuries but how it could nevertheless be overthrown, in the second half of the nineteenth century, when the treatments academic medicine had to offer were, in hindsight, still not substantially superior to letting the disease take its natural course. Searching for the answers lies beyond the scope of this paper but a comparison with the situation in the early modern period suggests that state regulation privileging university-trained physicians, mass-insurance

¹²⁹ *Ibid.*, fol. 120v.

¹³⁰ *Ibid.*, fol. 177r.

¹³¹ *Ibid.*, fol. 17r: 'Derhalben sol man im helffen, so muß man Arczney geben, die den Magen reimen, reinigen, stercken, und widerumb zu recht bringen'.

¹³² *Ibid.*, fols 15v–16r.

¹³³ See, eg. BSB Cgm 6874, a collection of about 250 medical ethnographies written by Bavarian district physicians around 1860.

schemes and the growing role of the hospitals in general healthcare played a major role in this process. They limited the patients' choices and profoundly changed their position in the doctor–patient relationship.¹³⁴ Physicians were no longer under the same pressure to engage with and respect their patients' medical beliefs and preferences.

¹³⁴ Cf. Mary E. Fissell, 'The Disappearance of the Patient's Narrative and the Invention of Hospital Medicine', in R. French and A. Wear (eds), *British Medicine in an Age of Reform* (London and New York: Routledge, 1991), 92–109.