

# Dealing with Medical Uncertainty in and through the History of Medicine



Edited by Pieter Dhondt, Sari Aalto,  
Anne Kåtrine Kleberg Hansen  
and Saara-Maija Kontturi

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## Acknowledgements

This volume brings together the results of two exploratory workshops, the first organised in Helsinki in November 2019. However, only a month later, the human coronavirus was identified in an outbreak in China and quickly spread to other areas of Asia. Organising the second workshop in the exceptionally uncertain circumstances of the COVID-19 pandemic was far from easy. Therefore, it was delayed until March 2022, and even then, it only happened as an online event. Both workshops were funded by the Joint Committee for Nordic Research Councils for the Humanities and Social Sciences. We would like to thank not only the NOS-HS for its generous financial support, but also our co-applicants Eivind Engebretsen, Peter Nilsson and Nils Hansson, as well as the co-organisers, the International Commission for the History of Universities, Laura Kolbe and Jonatan Wistrand. The book is also part of an ongoing research project funded by the Research Council of Finland, to which we would also like to offer a word of thanks. The suggestions from the members of the project's steering committee proved to be most valuable throughout the entire process: Rolf Ahlzén, Ilona Autti-Rämö, Timo Bolt, Heini Hakosalo, Jarmo Jääskeläinen, Pekka Louhiala, and Kaat Wils. We would like to thank all the contributors of this volume for their hard work, their collaboration and patience. Indeed, the project lasted longer than all of us expected, and the way it reached its completion has not always been easy. The final completion of this book would not have been possible without the support of Jonathan Reinartz (the *Clio Medica* series editor), Melissa Allieri (associate editor at Brill), Christopher Brennan (our last-minute meticulously acting proofreader), and especially the incredibly detailed and constructive suggestions of both reviewers. Thank you for this. Last but not least, our sincerest thanks go to the home front. We are sure that we are not only speaking for the editors but also for the authors when we say that we would not be able to sustain our work without the support of family, partners, children and friends.

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# Dealing with Medical Uncertainty in and through the History of Medicine

*Pieter Dhondt, Sari Aalto, Rolf Ahlzén, Anne Katrine Kleberg Hansen  
and Saara-Maija Kontturi*

The capacity to tolerate medical uncertainty, which is always a central part of medicine and medical practice, has proven to be an important skill for medical practitioners. It is crucial to encourage physicians to engage in shared decision-making with their patients. The risks of an insufficient degree of tolerance of medical uncertainty are well known. Medical students tolerating ambiguity poorly, are more likely to feel that a general practitioner's work is too challenging and difficult and involves too much responsibility.<sup>1</sup> Once they begin their actual practice, they experience a greater degree of stress, frustration and anxiety, which may ultimately lead to disillusionment and even burnout.<sup>2</sup> In an effort to 'just be sure', excessive diagnostic tests are ordered, often at the request of increasingly mature patients, resulting in ever growing costs in a time of diminishing healthcare budgets.<sup>3</sup> A strong correlation has been found between a low tolerance of uncertainty and the avoidance by students of some specialties and the so-called underserved, since patients from these groups regularly suffer from novel and complex medical issues.<sup>4</sup> In order to prevent legal consequences in the case of medical errors, further investigations and/

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1 Maarit Nevalainen, *Growing To Be a General Practitioner: Tolerance of Uncertainty and Facing the Risk of Medical Errors* (Helsinki: University of Helsinki 2014).

2 Vera P. Luther and Sonia J. Crandall, "Commentary: Ambiguity and Uncertainty: Neglected Elements of Medical Education Curricula?", *Academic Medicine* 86 (2011), no. 7: 799–800 and Arabella Simpkin Begin, Michael Hidrue, Sara Lehrhoff, Marcela G. del Carmen, Katrina Armstrong and Jason H. Wasfy, "Factors Associated with Physician Tolerance of Uncertainty: An Observational Study", *Journal of General Internal Medicine* 37 (2021), no. 6: 1415–1421.

3 Trudy Van der Weijden a.o., "Unexplained Complaints in General Practice: Prevalence, Patients' Expectations, and Professionals' Test-Ordering Behavior", *Medical Decision Making* 23 (2003): 226–231.

4 Sharon Wayne a.o., "The Association Between Intolerance of Ambiguity and Decline in Medical Students' Attitudes Toward the Underserved", *Academic Medicine* 86 (2011), no. 7: 877–882.

or (stronger) drugs are prescribed, without properly considering the potential harmful side effects (e.g. increasing resistance against antibiotics).

As a result of all of this, there is general agreement about the need for more attention towards the topic of uncertainty in the medical curriculum. This was recently stated by Ciara Lee and her colleagues from the Otago Medical School (New Zealand) on the basis of an extensive literature review carried out to identify conceptual models of uncertainty within healthcare.<sup>5</sup> Yet, how to realise this ambition is much less clear. Prevailing approaches in the exploration of uncertainty focus on the possible risks of a low tolerance of uncertainty, on sources of uncertainty, on physicians' strategies to cope with and to manage ambiguity and complexity, and on the patients' reactions towards physicians expressing uncertainties in diagnoses and care.<sup>6</sup> The question of how to deal with this challenge in medical education has been voiced only in recent years,<sup>7</sup> and still very little is known about the development of the students' attitudes towards uncertainty during their medical training. This book aims to show that the theme of uncertainty has been an ever-present in medical practice and education, and one way in which this was previously addressed, either explicitly or otherwise, was through courses in the history of medicine. Only recently, has it become a subject that is discussed in separate courses. This book contributes to the discussion of medical uncertainty in medical education and practice through a strong interdisciplinary approach, yet starting primarily from a historical orientation.

Recently, the field of medical humanities – particularly in an Anglo-American context – has profiled itself in response to the specific need to address medical uncertainty more explicitly within the curriculum.<sup>8</sup> The origin of

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5 Ciara Lee, Katherine Hall, Megan Anakin and Ralph Pinnock, "Towards a New Understanding of Uncertainty in Medical Education", *Journal of Evaluation in Clinical Practice* 27 (2021): 1194–1204.

6 Nevalainen, *Growing To Be a General Practitioner* (2014): 13–23 offers a good overview of these research tendencies that is still valid, as it is largely confirmed by Lee a.o., "Towards a New Understanding of Uncertainty in Medical Education" (2021): 1199–1202.

7 E.g. Jenny Moffett, Elizabeth Armitage-Chan, Jennifer Hammond, Sile Kelly and Teresa Pawlikowska, "It's Okay To Not Know... A Qualitative Exploration of Faculty Approaches to Working with Uncertainty", *BMC Medical Education* 22 (2022), no. 135: 1–16; Georgina C. Stephens, Mahbub Sarkar and Michelle D. Lazarus, "Medical Student Experiences of Uncertainty Tolerance Moderators: A Longitudinal Qualitative Study", *Frontiers in Medicine* 9 (2022): 864141; and Neepa Thacker, Jennifer Wallis and Jo Winning, "Capable of Being in Uncertainties: Applied Medical Humanities in Undergraduate Medical Education", *British Medical Journal* 48 (2022), no. 3: 325–334.

8 E.g. Alan Bleakley, *Medical Humanities and Medical Education: How the Medical Humanities Can Shape Better Doctors* (London: Routledge 2015) and Danielle Ofri, "Medical Humanities: The Rx for Uncertainty?", *Academic Medicine* 92 (2017), no. 12: 1657–1658.

medical humanities goes back to the 1960s in the United States, where a group of social scientists, as well as medical professionals, claimed that medical training no longer sufficiently responded to the health problems of modern society. They raised concerns about the one-sided biological orientation and brought forth the need to add (more) humanities and social sciences to the curricula. In this way they aimed to emphasise the importance of a holistic approach and to enable doctors to better respond to increasing social and mental health problems.<sup>9</sup> However, even in a country like the United Kingdom, where most undergraduate medical programmes offer courses in one or more humanities subjects, there is still a lot of hostility towards medical humanities amongst the representatives of the dominant “genes and molecules” approach to medicine.<sup>10</sup>

Explicit attention towards medical uncertainty is a relatively recent concept, generally connected to the pioneering study by Renée Fox in 1957.<sup>11</sup> Although the topic has been discussed in medical education before, the need to deal with it openly and explicitly has become increasingly urgent due to the rapid developments in medical science and the introduction of various technologies that support diagnosis and treatment. Fox uses the experiences of medical students at Cornell University Medical College to describe different types of uncertainty they faced and how to acknowledge and deal with these uncertainties. It took at least until the 1980s before her concerns were shared more widely. This volume aims to strengthen the historical approach to medical uncertainty by exploring the history of changing attitudes towards it amongst medical practitioners and the changing role of medical humanities in medical education from the second half of the nineteenth century onwards. More specifically, it focusses firstly on the role that has been or can be attributed to the history of medicine as a teaching subject, from the introduction of the research university to the present day, and secondly, on how uncertainty in medicine has played a role in concrete historical cases.

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- 9 Howard S. Becker, Blanche Geer, Everett C. Hughes and Anselm L. Strauss, *Boys in White. Student Culture in Medical School* (Chicago: The University of Chicago Press 1961) and Guenter B. Risse, “The Role of Medical History in the Education of the ‘Humanist’ Physician”, *Journal of Medical Education* 50 (1975), no. 5: 458–465.
- 10 Belinda Jack, “The Rise of the Medical Humanities”, *Times Higher Education* (22.1.2015).
- 11 Renée C. Fox, “Training for Uncertainty”, in: Robert K. Merton, Geroge G. Reader and Patricia L. Kendall (eds.), *The Student Physician* (Cambridge, Mass: Harvard University Press 1957): 207–242.

## 1 Different Kinds of Uncertainty

From the introduction of the research university at the end of the nineteenth century, the balance between medicine as art and science gradually passed over to an approach of medicine as a natural and biological science, although some medical professors strove to rebalance the dichotomy by adding history of medicine to the curricula. However, even the successive, celebrated breakthroughs in medical science will never be able to completely eliminate uncertainty in clinical decision-making and therapeutic treatments. Different definitions of medical uncertainty circulate and are discussed in medical literature. An often-used approach, starting exclusively from the physician's point of view, is to distinguish between on the one hand informational or epistemological uncertainty resulting from knowledge deficits of the physician and/or in medicine, and on the other hand intrinsic uncertainty as an inherent attribute of daily clinical care, referring to the inability to predict the future with certainty for any patient.<sup>12</sup>

Another classification has been introduced by Paul Han, William Klein and Neeraj Arora from the Maine Medical Centre. The first dimension of their comprehensive and – precisely because of its comprehensive character – most influential taxonomy of varieties of uncertainty focusses on the sources of uncertainty. These are identified as 1) probability or risk – that is the indeterminacy of future outcome; 2) ambiguity, by which they refer to the lack of reliability, credibility, or adequacy of risk estimates; and 3) complexity, coming from aspects of the phenomenon itself that make it difficult to comprehend. As a second dimension, substantive issues are added, again subdivided into three main categories: 1) scientific: what encompasses uncertainties about diagnosis, prognosis, causal explanations, and treatment recommendations; 2) practical: what applies to the structures and processes of care; and 3) personal: what pertains to patient-centred psychosocial and existential issues. The third dimension specifies the location of uncertainty, existing in the minds of patients, clinicians, both, or neither, manifesting the fundamentally relational character of healthcare.<sup>13</sup>

The contributions to this volume deal with medical uncertainty during different periods of the development of modern medicine and in very different

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12 This approach was introduced by Fox in "Training for Uncertainty" (1957): 207–242 and elaborated further in Renée C. Fox, "The Evolution of Medical Uncertainty", *The Milbank Memorial Fund Quarterly. Health and Society* 58 (1980), no. 1: 1–49.

13 Paul K.J. Han, William M.P. Klein and Neeraj K. Arora, "Varieties of Uncertainty in Health Care: A Conceptual Taxonomy", *Medical Decision Making* 31 (2011): 828–838.

sociocultural settings. The diversity is striking. Uncertainty appears in various forms and has various consequences. Through the incorporation of a historical dimension in the discussion on medical uncertainty, demonstrating the changing nature of uncertainty throughout history, we aim to explore whether and in what way such an approach can help to deal with this continuously changing uncertainty. Whereas in the first part of this book the focus is primarily on uncertainty from the point of view of the medical practitioner or the medical student, in the second part the patient's point of view is added.

Obviously, questions about uncertainty are not unique to medical science, but are core issues of history and philosophy of science in general. As Lorraine Daston and Peter Galison have shown, even a scientific concept as fundamental as 'objectivity' has a history of its own. In their seminal work *Objectivity*, they explain how objectivity became a spatiotemporal moment of natural science that coexists synchronically and diachronically with other versions. It is thus a scientific concept that does not exist as a given entity but was created as a collective effort to deal with uncertainty and ignorance.<sup>14</sup> Studying the uses and deployment of both strategic and unintentional 'not knowing' and the associated uncertainty is central to the thriving field of ignorance studies. One recent example is a study by the Oxford health sociologist Samantha Vanderslott, who focussed on how tropical diseases had moved from once being of great importance for European empires, to gradually being neglected and forgotten, until eventually returning once again to the spotlight. The specialism of tropical medicine emerged as a separate discipline from the 1870s, reflecting the spirit of the era of imperialism, when the great powers battled for control over large parts of the globe. All nations involved urged their scientists to solve the 'puzzle of malaria', preferably first and on their own but, if necessary, through international cooperation. Even today, specialists in this discipline – as in medicine as a whole – face pressure from within or without to reduce ignorance about one condition or another (and thus 'neglect' other diseases), often using the degree of medical uncertainty about that condition as a criterion.<sup>15</sup>

But what, then, is meant by 'medical uncertainty' or 'medical ambiguity' in this volume? Recently, it has been argued that uncertainty and ambiguity can no longer be used as synonyms,<sup>16</sup> however both terms are used interchangeably

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14 Lorraine Daston and Peter Galison, *Objectivity* (New York: Zone Books 2007).

15 Samantha Vanderslott, *Attention and Responsibility in Global Health. The Currency of Neglect* (Routledge Research in Ignorance Studies) (London: Routledge 2023).

16 Lee a.o., "Towards a New Understanding of Uncertainty in Medical Education" (2021): 1196.

in this volume because the (subtle) distinction between them only dates from the last two to three decades. As an introduction to the volume, we will attempt to capture the basic outlines of medical uncertainty, arguing that it is meaningful to keep two aspects apart.

### 1.1 *Epistemic Uncertainty*

Probably most people associate medical uncertainty with our insufficient knowledge about diseases – what causes them (etiology), how to treat them (therapy) and their course when treated (prognosis). This basic characteristic of medical practice has persisted, in spite of the massive progress in medical science during the last 150 years. Contrary to what is often assumed, physicians are usually very aware of this uncertainty that permeates their everyday practice, but there are some forms of uncertainty that they may be less prepared to handle.

A fundamental reason for uncertainty in clinical practice is that diseases are caused by many factors in combination, often in very complex patterns. A strong contributing factor is the uniqueness of each individual's biology, making the result of attempts to affect pathophysiological processes inherently unpredictable. Also, the now-fashionable precision medicine or personalised medicine, with the ambition to biologically customise treatment to individual persons, can do little to change this. Uncertainty even seems to be a key characteristic of precision medicine in practice.<sup>17</sup> Finally, each individual interprets symptoms of disease in their own unique way, influenced by personality factors, earlier illness experiences, ideas and advice of those close to them, and other sociocultural factors.

One way of expressing and handling this epistemic uncertainty is by assigning probability to different outcomes of medical intervention. Probability estimations abound in clinical medicine. Prognosis is expressed in terms of 5- or 10-years survival, outcomes of therapy are estimated as p-values (or probability values), and etiological hypotheses are formulated in terms of 'necessary but not sufficient causes' or 'contributing causes'. The probability estimations are themselves permeated by uncertainty. A common way of meeting this inevitable lack of full knowledge is to accept higher uncertainty when the stakes are very high. Expressed in another way, when situations are precarious or desperate, the demands for certainty of outcome are smaller.

Probability thinking may be seen as the very essence of uncertainty. Even if the probability may be estimated, when such an estimation concerns matters

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<sup>17</sup> Simon Lohse, "Mapping Uncertainty in Precision Medicine: A Systematic Scoping Review", *Journal of Evaluation in Clinical Practice* 29 (2023), no: 3: 554–564.

of great importance for human lives – such as operations, medications, and other interventions – this means that the outcome can only be described by using words like ‘possible’, ‘very probable’ or ‘highly unlikely’, or ‘low or minimal risk’. This increasing focus on probability calculations only dates from the second half of the twentieth century, together with the shift from infectious diseases to chronic and degenerative diseases.<sup>18</sup> Unlike infectious diseases, which were thought to be monocausal, the development of chronic diseases involved multiple factors at the same time. Physicians had to start thinking in terms of risk factors that increase the chance or probability of, for example, cardiovascular diseases, cancer or obesity.<sup>19</sup>

The expression ‘low or minimal risk’ reminds us that nowadays, the word risk is often used to signify the probability for an adverse outcome. Medical measures are, ideally, the result of a balancing of more or less uncertain risks against more or less uncertain benefits. If ‘uncertain’ in this context had meant ‘totally unknown’, this would be an immoral lottery with human lives at stake. It should rather be interpreted as ‘estimated with the best methods possible’. And in most cases today this means Randomised Controlled Trials (RCTs).

Since the rise of the Evidence Based Medicine movement, it has been taken for granted that medical treatments which lack empirical backing are inherently uncertain and untrustworthy.<sup>20</sup> The golden standard of research on medical interventions then has become the RCT. It is based on the random selection of two groups, who are supposed to be representative for the population to be treated. These two groups are assigned different treatments – one receives the treatment to be investigated, the other either the best already established treatment, or placebo treatment. After a defined time, the groups are compared in relation to certain outcome variables. However, the quality of the massive outpouring of studies based on RCTs has been put into question. Already as early as 2005, the Greek-American epidemiologist John Ioannidis wrote an article in which he stated, “Why most published research findings are false”, arguing that the evidence presented in many research articles, even in highly respected journals, was weak. Ioannidis argues that studies are far

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18 Ian Hacking, *The Emergence of Probability. A Philosophical Study of Early Ideas about Probability, Induction and Statistical Inference* (Cambridge: University Press 2006) and Ian Hacking, *The Taming of Chance* (Cambridge: University Press 2014).

19 See, for instance, J. Rosser Matthews, *Quantification and the Quest for Medical Certainty* (Princeton: University Press 1995).

20 See Timo Bolt, *A Doctor's Order: The Dutch Case of Evidence-Based Medicine (1970–2015)* (Antwerp: Garant 2015).

too often biased and hence do not provide the evidence they claim.<sup>21</sup> There are a number of reasons for this, and the article was followed by several others which have combined to create a growing dissatisfaction with the situation in clinical medical science. There are now movements which have sharpened the focus on evidence, and possibly as a result the uncertainty around clinical trials may diminish.

Finally, it is worth mentioning what is often called ‘the population paradox’.<sup>22</sup> By statistical necessity, clinical trials are made up of large groups of usually randomly sampled persons. The results are thus the summarized values from large groups. Significant individual variations may, so to speak, drown in this aggregated data. Hence, no study may with certainty say anything at the individual level. This opens up a margin for clinical judgement in the unique case, or if one prefers, for clinical intuition, in the sense described in the final chapter of this volume by Måns Lindén and Jonatan Wistrand.

The difficulty of giving reliable prognosis during the treatment of a disease is a disappointing aspect of clinical practice. It is not surprising that one of the most pressing concerns of the ill person and his or her relatives is often: “How will it turn out?” and “How long will this take?”, or “Will I survive?” In some cases, such predictions may be rather certain. But the deeply human wish for answers to such questions, even in cases of deep uncertainty, may tempt clinicians to transcend the boundaries of sound judgement, and make more or less precise predictions about the course of the disease under treatment. All too often these turn out to be false.

Before turning to the second basic form of medical uncertainty, we must deal with another aspect of epistemic uncertainty which we may call ‘uncertainty about categories’. Diagnoses may exemplify this. Traditionally, a diagnosis has been seen as a necessity in clinical medicine. Without categories there would be no general knowledge about disease and hence few possibilities of finding effective treatments. Diagnoses are based on symptoms and pathophysiological findings which are grouped together, sometimes based on etiology, sometimes on pathophysiology, and sometimes on similarities in the overall clinical picture. However, questions around the representability, benefits and risks associated with diagnoses have increasingly been brought up. Diagnostic categories are heterogenous. They may be looked upon as prototypical, with a core where signs and symptoms show strong resemblance to the

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21 John Ioannidis, “Why Most Published Research Findings Are False”, *PLOS Medicine* 2 (2005), no. 8: e24.

22 John Douglas Swales, “The Population Paradox”, *Journal of the Royal Society of Medicine* 88 (1995), no. 11: 605–606.

disease, and then concentric circles outwards towards less and less similarity. The concept misdiagnosis can be used for diagnoses which are made on the basis of too weak a knowledge.

Diagnoses are supposed to be favourable to ill persons. Those who experience unpleasant symptoms often long to get a diagnosis, because it will bring treatment and also understanding and legitimacy in the eyes of others. But are all diagnoses really favourable to those who get them? The strength of diagnosis could potentially also be harmful. Diagnoses may stigmatize, they may act as self-fulfilling prophecies. The deceptive nature of diagnosis means that diagnostic uncertainty is not only of an epistemic kind, but also ethically charged. To diagnose those who will in no way benefit from the diagnosis is unethical, a fact often discussed under the name of ‘medicalisation’.<sup>23</sup> Again, we face a dilemma where uncertainty has deep moral implications.

### 1.2 *Normative (moral) Uncertainty*

Factual, epistemic uncertainty is, at least in principle, possible to overcome by the addition of more knowledge. An example of this may be uncertainty in the diagnosis or treatment arising from poorly understood pathophysiological processes. Such uncertainty may be partly or fully overcome with new scientific breakthroughs, making predictions far more reliable.

In contrast to this, much normative uncertainty and uncertainty about qualitative variables – life quality, pain, sense of control, sense of dignity – are of a more fundamental nature. There is no additional knowledge that may once and for all eradicate such uncertainty. Possibly, this is one reason why some clinicians brush such considerations aside. They feel that they go from solid ground to a quagmire. Hence, they retreat into the more well-known territory of quantifiable parameters.

One basic challenge here is human intersubjectivity. The patient who says “My pain is unbearable” has the exclusive right to this experience, but if it needs to be evaluated against other people’s pain, for example for prioritization, a gap opens up between the patient and the observer. To some extent, this gap can be narrowed by empathetic participation based on experience and imagination, but the gap cannot be fully filled, and uncertainty will always be the result. It is hence no surprise that there are numerous attempts to transform qualitative variables, like pain and life-quality, into quantitative ones.<sup>24</sup> This gives the clinician at least an illusion of having come back to solid ground.

23 See Rolf Ahlzén, Martyn Evans, Pekka Louhiala and Raimo Puustinen (eds.), *Medical Humanities Companion Volume Two: Diagnosis* (London: Routledge 2010).

24 Janet Mola Okoko, Scott Tunison and Keith D Walker (eds.), *Varieties of Qualitative Research Methods: Selected Contextual Perspectives* (London: Springer 2023).

Even more obvious and potentially more harmful is such normative uncertainty which has fundamental moral disagreement as a consequence. What are generally called moral dilemmas are situations where decisions have to be made where those involved find themselves facing a set of basic values which are in conflict with each other. From the point of view of the healthcare professionals, it seems as if whatever action is taken, something of fundamental value will be lost. Typically, such value conflicts may be between the patient's autonomy and the healthcare professional's wish to do good, to cure, and to ameliorate. Or it may be between society's preference for equitable distribution and the wish from patient and relatives to receive, what is fundamentally, resource consuming treatment.

Normative dilemmas are not 'solved', in the sense that there is some kind of magical answer that will satisfy all parties and that would make the moral equation neatly add up. Tensions may remain, the moral conflict may not go away, those involved may remain deeply uncertain about what was the right decision, even long after it was made. Moral dilemmas are in a sense 'unsolvable'. Something essential will be lost, whatever decision is made. Some moral dilemmas are minor, and these will be possible to live with. Major dilemmas, for example about life and death matters, will take their personal toll. Such dilemmas have a price for the individual, and healthcare professionals who are not prepared for painful ethical compromises may be overwhelmed and lose faith in their own moral capacity, a predicament often called 'moral stress'.<sup>25</sup>

## 2 Historiography on the History of Medicine and Its Place in Medical Education

For medical students, the difficulty to distinguish between their personal ignorance and the limitations of present medical knowledge, creates an additional source of insecurity. On the one hand, the presence of uncertainty is self-evident. On the other hand, the medical training environment tends to discourage expressions of uncertainty.<sup>26</sup> Nevertheless, the increased awareness of the importance of a higher tolerance of uncertainty among medical students has resulted in the introduction of novel educational initiatives, ranging

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25 Connie M. Ulrich and Christine Grady (eds.), *Moral Distress in the Health Professions* (London: Springer 2018).

26 Charlie M. Wray and Lawrence K. Loo, "The Diagnosis, Prognosis, and Treatment of Medical Uncertainty", *Journal of Graduate Medical Education* 7 (2015): 523–527.

from more traditional lecture series or seminars in the medical humanities<sup>27</sup> to reflective learning diaries<sup>28</sup> and challenging role-playing sessions.<sup>29</sup> Also narrative medicine, as another discipline within the medical humanities, has proven its potential in this regard.<sup>30</sup> Many of these recent studies are based on very concrete teaching practices developed within the classroom, often in direct interaction with students.

In historical research on developments in medical education, attention to the actual content and character of educational activities and classroom history is still rather limited, yet growing. Traditionally, the field has been dominated by institutional histories of medical faculties or medical schools. At the same time, the field has opened up considerably over the past decades. In 1995, Thomas Neville Bonner was one of the first to transcend the boundaries of the own institution with his ground-breaking comparative study on medical education in Great Britain, France, Germany and the United States.<sup>31</sup> Nowadays, the number of studies that adopt a transnational, regional, national or colonial perspective on the history of medical education is abundant.<sup>32</sup> And yet,

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- 27 E.g. Stefan C. Weiss, "Humanities in Medical Education: Revisiting the Doctor-Patient Relationship", *Medicine and Law* 19 (2000): 559–567.
- 28 Maarit Nevalainen, Taina Mantyranta and Kaisu H. Pitkälä, "Facing Uncertainty as a Medical Student – A Qualitative Study of Their Reflective Diaries and Writings on Specific Themes During the First Clinical Year", *Patient Education and Counseling* 78 (2010), no. 2: 218–223 and Hedy S. Wald, Jordan White, Shmuel P. Reis, Angela Y. Esquibel and David Anthony, "Grappling With Complexity: Medical Students' Reflective Writings About Challenging Patient Encounters as a Window Into Professional Identity Formation", *Medical Teacher* 41 (2019), no. 2: 152–160.
- 29 Moffett a.o. "It's Okay to Not Know..." (2022): 1–16.
- 30 See, for instance, Rolf Ahlén, *Why Should Physicians Read? Understanding Clinical Judgment and Its Relation to Literary Experience* (Karlstad: Universitetsstryckeriet 2010); Anders Juhl Rasmussen, Anne-Marie Mai and Helle Ploug Hansen (eds.), *Narrative Medicine in Education, Practice, and Interventions* (London: Anthem Press 2022) and Trine Graabæk, Anders Juhl Rasmussen, Anne-Marie Mai, Charlotte Rossing and Ulla Hedegaard, "Can Literary Reading and Writing Improve Pharmacists' Medication Counselling? A Feasibility Study of Pharmacists' Efforts to Achieve Competence in Narrative Medicine", *Pharmacy Education* 22 (2022), no. 1: 744–760.
- 31 Thomas Neville Bonner, *Becoming a Physician. Medical Education in Britain, France, Germany, and the United States, 1750–1945* (Oxford: University Press 1995).
- 32 E.g. Ole Peter Grell, Andrew Cunningham and Jon Arrizabalaga (eds.), *Centres of Medical Excellence: Medical Travel and Education in Europe, 1500–1789* (London: Routledge 2010); Pieter Dhondt, "Cultures", in: Heather Ellis and Tamson Pietsch, *A Cultural History of Higher Learning. Vol. 5. 1760–1900* (London: Bloomsbury 2025); Lincoln Chen, Michael Reich and Jennifer Ryan (eds.), *Medical Education in East Asia: Past and Future* (Bloomington: Indiana University Press 2017); Vivian Nutton and Roy Porter (eds.), *The History of Medical Education in Britain* (Clio Medica 30) (Leiden: Brill 1995); Kenneth M. Ludmerer,

research into what actually happened in the laboratories, dissection rooms, or lecture halls remains the exception rather than the rule, although the collection of case studies recently published in honour of Jacalyn Duffin also offers a few inspiring examples of this approach.<sup>33</sup>

Not only the interest in the history of medical education has been growing, but even more so medical history in general experienced a “remarkable growth and vitality [...] as a scholarly field over the past three decades, primarily in the English-speaking world”.<sup>34</sup> Research has long ceased to be primarily conducted by clinicians (often in their old age and in their free time) who look back on the progress achieved in their particular sub-discipline. And although that cliché has never really held water, since the 1980s at the latest, social historians of medicine have increasingly questioned the story of progress and have attempted to demonstrate how much the development of medicine is embedded in broader social, cultural, religious, economic and political shifts. Since then, more and more diverse perspectives have only further extended the field. Currently, most of the professional historians or historical sociologists practising history of medicine are institutionally located within the humanities or social science faculties, and no longer within the medical schools, even though in recent years there has been a cautious shift in this area.

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*Time to Heal: American Medical Education from the Turn of the Century to the Era of Managed Care* (New York: Oxford University Press 1999); Elisabeth Quirine Hesselink, *Healers on the Colonial Market: Native Doctors and Midwives in the Dutch East Indies* (Leiden: Koninklijk Instituut voor Taal-, Land- en Volkenkunde 2011); Kaat Wils, Raf De Bont and Sokhieng Au, *Bodies Beyond Borders. Moving Anatomies, 1750–1950* (Leuven: University Press 2017).

- 33 E.g. Michael Stolberg, “Training Future Practitioners: Medical Education in Sixteenth- and Early-Seventeenth-Century Padua and Montpellier from the Students’ Perspective”, in: Delia Gavrus and Susan Lamb (eds.), *Transforming Medical Education. Historical Case Studies of Teaching, Learning, and Belonging in Medicine in Honour of Jacalyn Duffin* (Montréal & Kingston / London / Chicago: McGill-Queen’s University Press 2022): 112–135 and Maria Pia Donato, “Surgeons’ Training and Hospital Life in Seventeenth- and Eighteenth-Century Rome”, in: Gavrus and Lamb (eds.), *Transforming Medical Education* (2022): 136–160. The extensive reference framework in the book as a whole also functions excellently as a recent bibliographic overview. Sari Aalto’s study on the transformation of the training of Finnish physicians and the significance of tacit knowledge in their education is another example of this kind: Sari Aalto, *Medisiinarit, ammattiin kasvaminen ja hiljainen tieto. Suomalaisen lääkärikoulutuksen murroksen vuodet 1933–1969* [Medical students, growing into the profession and tacit knowledge. The years of transformation of the education of Finnish physicians] (Helsinki: University of Helsinki 2016).
- 34 Frank Huisman, Joris Vandendriessche and Kaat Wils, “Introduction: Blurring Boundaries: Towards a Medical History of the Twentieth Century”, *Low Countries Historical Review* 132 (2017), no. 1: 3–15. In the introduction, useful references to overviews of historiographical trends since the 1980s are mentioned.

Whichever way you look at it, a striking omission upon which this volume aspires to shed light is that the flourishing field is hardly present in medical schools.<sup>35</sup> It was only in the early nineteenth century that history of medicine came into existence as a separate teaching subject. Until then, the historical approach was embedded in and an integral part of medical training. Since 1800, the implementation of history of medicine into the medical curriculum has waxed and waned. As discussed in more detail in chapter 1, the field experienced an exceptional boom around 1900, both as a teaching and research discipline. However, gradually a duality came into existence. In their research, historians of medicine increasingly followed general developments in the science of history. In their teaching, most professors in medical history directed themselves still primarily to medical students.

Yet it was only a matter of some decades before the history of medicine was considered almost exclusively an historical sub-discipline and no longer a medical one, also from a teaching perspective. During the interwar period, the succession of major breakthroughs in medical science of which students needed to be aware and the inclusion of an ever-increasing number of different specialist courses resulted in an overloaded curriculum and an excessively long period of study. There was no longer room for something as frivolous and of little use as the history of medicine.<sup>36</sup> Therefore, courses in the history of medicine moved to the humanities and social science faculties, where indeed they contributed to and reaped the benefits of a flourishing field. Especially after the Second World War, when breakthroughs in biomedical research changed medicine and healthcare definitively, medical history lost curricular ground in almost all medical schools.<sup>37</sup>

Even though in the 1970s and 1980s, critics such as Michel Foucault and Ivan Illich developed the new branch of social history of medicine, it took until the late 1990s before this was reflected in a renewed attention for medical history as a teaching subject within medical faculties. There were of course some exceptions, such as the flourishing of the field in (most of) the Nordic countries in the late 1970s, as discussed by Sari Aalto in chapter 3, yet also here this upswing

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35 Kenneth M. Ludmerer, "The History of Medicine in Medical Education", *Journal of the History of Medicine* 70 (2015): 656–660.

36 Renaud Bardez and Pieter Dhondt, "Ways of Knowing Medicine", in: Joris Vandendriessche and Benoît Majerus (eds.), *Medical Histories of Belgium. New Narratives on Health, Care and Citizenship in the Nineteenth and Twentieth Centuries* (Manchester: University Press 2021): 190–198.

37 Frank Huisman, "Infiltrating the National Curriculum: A Medical History Handbook for Medical Students", in: Gavrus and Lamb (eds.), *Transforming Medical Education* (2022): 485.

was short-lived. The Dutch medical historian Frank Huisman has argued that the publication of new medical history handbooks, by Roy Porter in 1997 and Jacalyn Duffin in 1999, was the real turning point in the reintroduction of the history of medicine into the medical curriculum.<sup>38</sup>

As a result, from 2000 onwards, the attention to the position of the history of medicine in the training of physicians has been increasing again. In medical literature, the following four questions always appear: 1) Why study history of medicine?; 2) What to teach about the extensive body of medical history?; 3) How to teach history of medicine and who should do it?; and 4) At which point should the student be exposed to history of medicine?<sup>39</sup> In the pleas for the (re)introduction of the subject into the curriculum, the same but important arguments are often repeated. According to these arguments, the history of medicine can rehumanise medicine as a science and counter the predominant reductionist approach towards disease; make students aware of the contingency of medical knowledge and practice amid the social, economic and political contexts of medicine; and help them to understand how their professional identity has been built over centuries.

The current attitude towards the history of medicine as part of medical training is divided. On the one hand, there is a general and even increasing enthusiasm among students.<sup>40</sup> After having taken courses in the history of medicine, students in Parma and Bologna, for instance, not only appreciated the usefulness of an historical approach more, but most of them even carried out autonomous historical research.<sup>41</sup> A similar study among first- and fourth-year students and alumni of the University of Maryland School of Medicine concluded that knowledge of medical history benefits physicians because

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38 Huisman, "Infiltrating the National Curriculum" (2022): 485–486.

39 Emanuele Armocida, Nicolò Nicoli Aldini and Ovidio Bussolati, "How Do Students Approach the Study of the History of Medicine? Some Considerations After the Final Exams at the First Year and Fourth Year", *Acta Bio Medica Atenei Parmensis* 92 (2021), no. 2: e2021167.

40 E.g. Stefan Schulz a.o., "Wie wichtig ist der Unterricht in Medizinethik und Medizingeschichte im Medizinstudium? Eine empirische Studie zu den Einschätzungen Studierender", *Zeitschrift für Medizinische Ausbildung* 29 (2012), no. 1: 1–18; and Lindsey Kent and Peter J. Ward, "Investigating the Presence of the History of Medicine in North American Medical Education: Can One of the Medical Humanities Concisely Integrate with Biomedical and Clinical Content with Reference to Clinical Competencies?", *Medical Science Educator* 30 (2020): 1531–1539.

41 Armocida, Aldini and Bussolati, "How Do Students Approach the Study of the History of Medicine?" (2021).

it helps reveal the limitations of current evidence, encourages openness to change, places clinical practice in proper context, and promotes humanism.<sup>42</sup>

On the other hand, the same difficulties always return, the constant struggle to reserve a place for the history of medicine in an ever-crowded curriculum being by far the most significant. Some scholars add the lack of support from academic chairpersons for activities related to the history of medicine, and particularly a hesitance to include the discipline in any way into medical examinations.<sup>43</sup> Another reason, that some of us have experienced ourselves, may be that those in charge of medical education fear that historians (if they are the ones teaching) are relativising the progress of medicine and sometimes carelessly use words like holism and reductionism. Precisely because of the constant curricular time constraints, already from the middle of the 1990s, Duffin launched her famous call for an integrative approach, consisting of piggybacking historical notions on medical courses, instead of striving for the introduction of full-time separate medical history courses.<sup>44</sup> Together with David Jones, Jeremy Greene and John Harley Warner, she repeated this call twenty years later by “making the case for history as an essential component of medical knowledge”.<sup>45</sup> Since then, their call has been quoted again and again, and has strengthened the position of medical history within medical education.<sup>46</sup>

In early 2023, a special issue of the *Journal of the History of Medicine and Allied Sciences* was devoted to “Remaking the Case for History in Medical Education”. According to its editors, this “survey of interesting and innovative practical examples” was brought together to show “how a small sample of colleagues across the world are pushing the boundaries for the integration of the history of medicine within clinical education, [...] thus creating models for others to emulate.”<sup>47</sup> In 2015, Jones, Greene, Duffin and Harley Warner still emphasised

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42 Philip A. Mackowiak, Donna Parker and Lindsay D. Croft, “The Case for Medical History in Physicians’ Education: A Survey of What Physicians and Physicians-in-Training Think”, *The American Journal of Medicine* 130 (2017), no. 4: 494–497.

43 Justin Caramiciu, David Arcella and Manisha S. Desai, “History of Medicine in US Medical School Curricula”, *Journal of Anesthesia History* 1 (2015): 111–114.

44 Jacalyn Duffin, “Infiltrating the Curriculum: An Integrative Approach to History for Medical Students”, *Journal of Medical Humanities* 16 (1995), no. 3: 155–174.

45 David S. Jones, Jeremy A. Greene, Jacalyn Duffin and John Harley Warner, “Making the Case for History in Medical Education”, *Journal of the History of Medicine and Allied Sciences*, 70 (2015): 623–652.

46 Delia Gavrus and Susan Lamb, “Introduction”, in: Gavrus and Lamb (eds.), *Transforming Medical Education* (2022): 3–27.

47 Jacob Steere-Williams, Justin Barr, Claire D. Clark and Raúl Necochea López, “Remaking the Case for History in Medical Education”, *Journal of the History of Medicine and Allied Sciences* 78 (2023): 3.

the uniqueness of the historical approach – even to some extent in competition with medical ethics and medical humanities. However, their successors in 2023, favoured a “collaborative spirit that animates the practice of modern medicine”, characterising medical history as one subject among the medical or health humanities,<sup>48</sup> with possibly similar potential to contribute to dealing with medical uncertainty as other sub-disciplines within this broad field.<sup>49</sup> During the past twenty years, the importance of the medical humanities has increased massively within the bachelor programmes of most medical schools.

### 3 Aims and Structure of the Volume

Even though this book clearly starts from a historical perspective, it nevertheless places itself more in line with the latter, broader situating of medical history within the medical humanities, by making connections, for instance, with philosophy (in chapter 10) and literature studies (in chapter 5). Some of the previously cited medical historians (most prominently in the Anglo-American world) have touched upon the question of which opportunities courses in the history of medicine might offer to increase the tolerance of uncertainty, but this topic is definitely still largely underexplored, both in a continental European perspective and from a historical approach. What makes this volume unique, is precisely the way it brings together the history of medical history as a subject taught in medical schools and the issue of medical uncertainty.

We are well aware that, by thus connecting a purely historical approach with a more practical objective, we introduce a prescriptive element not common in historical scholarship.<sup>50</sup> Of course, it is absolutely not our intention to press the past for answers to contemporary questions or to seek for any kind of self-confirmation, as many of the authors of this volume are themselves teachers of the history of medicine. Instead, we want to be interrogated by perspectives from the past. Like history of education in teacher training, history of medicine has an important place in medical training, not to provide edifying or discouraging examples, but to offer models of interpretation, reflexivity, and dilemmas. Just as the historian tries to understand the past on the basis of the available sources and by making use of the imagination, self-reflection and

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48 Steere-Williams a.o., “Remaking the Case for History in Medical Education” (2023): 4.

49 Thacker, Wallis and Winning, “Capable of Being in Uncertainties” (2022): 325–334.

50 Cf. Herman Paul, *Key Issues in Historical Theory* (London: Routledge 2015).

critical judgement, the physician also deploys similar aspects of uncertainty to make sound clinical decisions.<sup>51</sup>

The book addresses medical educators, especially those who want to discuss issues of ambiguity and uncertainty with their students, as well as historians of medicine. Precisely because of the great variety of manifestations of medical uncertainty that this book offers, on a chronological and socio-cultural level, this book can appeal to a wide audience of those interested in the history of medicine. The varied geographical scope enables us to provide a continental counterweight to the traditional focus on Anglo-American developments. The case studies from, for instance, the Nordic countries, Belgium, Czech Republic, Germany and France, are always discussed in a wider international scope.

How medical uncertainty can be addressed in medical training and practice is the central question of the volume as a whole. In the first part, we explore the shifts in the balance between medicine as an art and medicine as a science from the gradual introduction of the research university in the 1880s, when medicine increasingly came to be regarded as an objective natural science. To what extent and in which way was there still room for medical uncertainty, despite increasing 'scientification'? The chapters in this first part examine the history of medicine as a sub-discipline within the medical humanities and its possible contributions to dealing with medical uncertainty. To what extent and in what way did the history of medicine reduce intolerance of ambiguity among medical students in the past, and can still do so today? Opportunities are offered, for instance, through the similarity between historical methodology and clinical decision-making, as well as through the historical content by focussing on the embedding of medical knowledge, including bio-medical knowledge, within the wider social and cultural context, thus pointing to the huge differences in medical practices in time and place, or by discussing the alternating approaches towards the division or unity of body and soul in a long-term historical perspective. Moreover, how to make medical students take an interest in a subject which they do not necessarily consider relevant? This is a particularly important question as the history of medicine seems to contradict the struggle for objectivity and the reduction of insecurity in the general pattern of their training. Might this latter characteristic of the history of medicine as a discipline even be the key to the benefits of it for medical students?

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51 Jacalyn Duffin, "A Hippocratic Triangle: History, Clinician-Historians, and Future Doctors", in: Frank Huisman and John Harley Warner (eds.), *Locating Medical History. The Stories and Their Meanings* (Baltimore/London: The Johns Hopkins University Press 2006): 432–449; and Eivind Engebretsen a.o., "Uncertainty and Objectivity in Clinical Decision Making: A Clinical Case in Emergency Medicine", *Medicine, Health Care and Philosophy* 19 (2016), no. 4: 595–603.

In the first chapter, Pieter Dhondt and Saara-Maija Kontturi explain briefly the coming into existence of the history of medicine as a separate teaching subject at the beginning of the nineteenth century and how it came under increasing attack due to developments in medical science. The main focus is on the motivations behind the exceptional boom of the discipline around 1900, one of those clearly being to function as a counterweight to the over-driven shift to scientific materialism, of which the increasing confidence in medical operations was just one manifestation. However, in addition to the traditional reasoning that the history of medicine as a teaching subject could increase the sensibility for scientific doubt among students, representatives of the discipline now claimed that this attitude itself could become a new means in the unstoppable road to medical progress, thus contradicting their own plea to take distance from any dogma.

The University of Prague was one of the many institutions where this sudden renewed interest in the subject at the end of the nineteenth century was tangible. Therefore, Petr Svobodný studies in the second chapter the implementation of introductory courses to medical studies, so-called *hodegetics*, in Prague from the 1880s until the end of the Soviet regime in 1989. Only by analysing subtle references does he get a view on to what extent courses in medical deontology and the history of medicine were used to support medical students in their professional uncertainty. The main strength of his contribution, however, is to prove how the development of both disciplines has been influenced by many internal and external factors, particularly in the context of the introduction of Marxist ideology.

Sari Aalto's chapter also positions the short-term popularity of the history of medicine in Finnish medical education at the end of the 1970s within the social context. Even though there was a long tradition in Finland to regard culture, arts, and history (and thus, in current terms, the medical humanities) as important for medical students, in the scope of the wider anti-establishment movement of 1968, the history of medicine was seen as a counterweight to biomedical studies and as a means to provide a historical perspective on the societal context physicians were working in. It is true that during that period in Finland the subject was never explicitly defended from the idea of teaching students to deal with medical uncertainty, but nevertheless the arguments showed such a striking continuity that (consciously or not) the ambitions were often similar to those of their former (and current) colleagues.

In the last chapter of the first part, Rachel Irwin discusses uncertainties in the teaching of global health history. Instead of purely factual lectures on global health history, she calls for a broader historical perspective in global health education in order to address recent social movements that highlight

power and privilege, including a plea for 'decolonising the classroom'. The result presents explicit advice on presenting a messy and uncertain history within the constraints of existing courses.

Using several case studies, the second part illustrates the long-term and varied nature of questions of uncertainty and ambiguity in the history of medical practice. Starting from concrete examples, it explores to what extent physicians have openly discussed such issues or, alternatively, attempted to hide them under a cloak of expertise, whether intentionally or because of a particular paternalistic system in which medicine is embedded. Even though these case studies are set in particular historical contexts, they show how very closely questions of uncertainty and medical ethics are related to each other and how relevant they still are at in the present. As such, the second part offers an interesting and thought-provoking contribution to the book as a whole.

Virginia Langum begins in chapter 5 with the British debate around the middle of the nineteenth century on whether or not the climate of Madeira was suitable to cure what was then known as consumption. The controversy was provoked by Dr. John Mason's findings. Mason was a consumptive health traveller with an interest in meteorology. The controversy reveals a precarity and mistrust concerning climate science and the medical profession more generally. Langum convincingly broadens her story to contemporary practices and uncertainties in medical tourism.

Using the diary of the Finnish judge Erik Gustaf Eneberg as her main primary source, Evelina Wilson also brings to life the voice of the patient. In his diary, Eneberg described his disease (most probably consumption) in detail from 1851 until his death in 1852. Even though therapeutic uncertainty about the treatment was not explicitly articulated, throughout the chapter it becomes obvious that it was integral to medical practice and accepted by both physicians and patients, who at the time still shared strong humoralist and holistic views.

Jolien Gijbels' case study in chapter 7 is situated in the late nineteenth century. Her key thesis is that among Belgian gynaecologists, doubt and uncertainty, as much as medical confidence (in consequence of major breakthroughs in surgery), were fundamental contributing factors to the rise of radical and, often still, risky operations. In the context of this debate, physicians also addressed the role of education in informing surgical practice. Her chapter provides a good, concrete illustration of how the concept of uncertainty was used to contribute to progress in medical science, somewhat similar to the ambition of representatives in medical history, as shown in the first chapter.

The long-term anti-vaccination movement, discussed in chapter 8, is probably one of the most common and obvious protest movements against the

dogma of progress in Western scientific medicine. Suvi Rytty focusses on the somewhat unique Finnish case, where physicians presented a united front against the anti-vaccinationists, with the exception of Edward Wilhelm Lybeck. By analysing Lybeck's vaccination criticism and his colleagues' response to it, this chapter examines what kind of criticism and uncertainty about vaccination was allowed within the confines of the medical profession, and at what point it became heresy.

In chapter 9, Niels De Nutte offers a case study of medical dilemmas related to patients' rights and end-of-life decisions in the context of the debate on legalising active euthanasia in Belgium during the 1980s and 1990s. By annually submitting a living will, patients hoped to entitle their physicians to end treatment they deemed futile. Throughout his analysis, the author shows the crucial importance of an open dialogue between patients and physicians in any issues of medical uncertainty, a message that obviously is still valid today.<sup>52</sup>

In a sense, the last chapter is an outlier, as it neither discusses the position of history of medicine in medical training as in part 1, nor offers a purely historical case study as in part 2. But for that very reason, it is an excellent closing chapter for the book. By examining the value of the theory on intuition as developed by the Swedish philosopher Hans Larsson in the 1890s (as a kind of case study) for contemporary practice, Måns Lindén and Jonatan Wistrand concretely realise one of the ambitions discussed in the first part, namely how (examples from) medical history can help in dealing with medical uncertainty today. In their chapter they focus firstly on how, during the late nineteenth-century, Swedish philosopher Hans Larsson's intuition functioned as an antidote to increasing positivism and naturalism in the 1880s, as it was visible also in medical science; and secondly on whether Larsson's definition of intuition might serve the clinical judgement of twenty-first-century medical practice, suggesting in this way a new understanding of the 'art of medicine'.

In his afterword, Rolf Ahlzén concludes the book by summarising the key ideas of the different chapters, by highlighting some striking connections between the various case studies, and by linking back to the definition of medical uncertainty as provided in this introduction. As he rightly observes, although the essays included in this volume are very different in focus and style, they are connected by an important ambition: to explore and better understand medical uncertainty and the position of the history of medicine in dealing with this issue.

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52 A final technical note is that the translations of all quotes are by the authors unless otherwise noted.

**PART 1**

*The History of Medicine as a Teaching Discipline  
in Medical Schools*



# The Contested Place of History in Medical Teaching: International Discussions around 1900

*Pieter Dhondt and Saara-Maija Kontturi*

Around 1900, the study of the history of medicine experienced an exceptional boom, both as a teaching and research discipline. New chairs in the subject were established, for instance, in Moscow (1884), in Copenhagen (1889), at the Saint Petersburg Military Medical Academy (1894), in Würzburg (1896), Graz (1898), Prague (1899), Leiden (1904) and Edinburgh (1908). According to a survey on the teaching of medical history in American universities, conducted in 1904 by Eugene Cordell, honorary professor of the history of medicine at the University of Maryland, courses were on offer in Yale, Pennsylvania, Chicago, Johns Hopkins, Maryland, Buffalo and Minnesota. In almost all cases, these courses had begun during the 1890s.<sup>1</sup> Paris, Vienna, Geneva, Madrid and a number of Italian universities had a much longer history of offering specialised (private) courses in this discipline, sometimes dating back to the end of the eighteenth century. However, in Paris the chair was interrupted between 1823 and 1870, and in Italy many of these courses languished during the 1860s and 1870s, only to receive a new impulse from the 1890s onwards.

In Germany also, during the first decade of the twentieth century, the institutionalisation of medical history advanced rapidly. At some universities, optional courses in medical history were offered sporadically during the nineteenth century, although in Berlin an actual professorship was established from 1834. However, at the turn of the century, the field began to flourish: in 1901 the world's first society of history of medicine and natural sciences was founded in Hamburg (Deutsche Gesellschaft für Geschichte der Medizin und Naturwissenschaften), in 1906 the University of Leipzig opened the first institute for the history of medicine, and a year later the first issue of the *Archiv für Geschichte der Medizin* [Archives for the History of Medicine] was published.<sup>2</sup> Similar national societies followed in France (1902), the Netherlands

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1 Eugene F. Cordell, "The Importance of the Study of the History of Medicine", *Medical Library and Historical Journal* 2 (1904): 270–271.

2 Volker Roelcke and Andreas Frewer, "Konzepte und Kontexte bei der Institutionalisierung der Medizinhistoriographie um die Wende vom 19. zum 20. Jahrhundert. Zur Einführung", in:

(1903), Italy (1907), the United States (1910) and England (1912). At the international level, Hendrik Frederik August Peypers, a practicing physician from Amsterdam, reintroduced the medical journal *Janus. Archives internationales pour l'histoire de la médecine et pour la géographie médicale* [International archives for the history of medicine and medical geography] in 1896 (see Figure 1.1).

The wider scientific and social context of this boom, as well as explanations as to the increased popularity of this discipline, have already been thoroughly investigated, especially in German-speaking regions.<sup>3</sup> There is also abundant literature on the most prominent individual representatives of the field during this period. The Paris professor Charles Daremberg, who occupied the newly founded chair between 1870 and 1872, acted as a model, which is reflected in the wide historiographical attention to his influential personality.<sup>4</sup> Other leading medical historians with written biographies include Julius Pagel (assistant professor in the history of medicine in Berlin from 1902 to 1912), Karl Sudhoff (founder of the Leipzig medical history institute), William Osler (co-founding physician of the Johns Hopkins Hospital in 1889) and Henry E. Sigerist (Sudhoff's successor in 1925, before he moved to the Johns Hopkins University in 1932).<sup>5</sup>

The question of why the institutionalisation of this historiographic sub-discipline happened precisely in this period will of course be discussed, and the existing literature will certainly help us to do this, but it is not the main focus of the chapter. We are primarily interested in medical history as a

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Andreas Frewer and Volker Roelcke (eds.), *Die Institutionalisierung der Medizinhistoriographie. Entwicklungslinien vom 19. ins 20. Jahrhundert* (Stuttgart: Franz Steiner Verlag 2001): 9.

3 See particularly Frewer and Roelcke (eds.), *Die Institutionalisierung der Medizinhistoriographie* (2001) and the literature cited therein.

4 E.g. Jean-François Braunstein, "Daremberg et les débuts de l'histoire de la médecine en France", *Revue d'histoire des sciences* 58 (2005), no. 2: 367–387; Philippe Galanopoulos, *L'enseignement de l'histoire de la médecine à Paris au XIXe siècle (1794–1914). La défaite de l'érudition* (Unpublished doctoral dissertation) (Ecole nationale des Chartes 2009); and Danielle Gourevitch, "Charles Daremberg, His Friend Émile Littré, and Positivist Medical History", in: Frank Huisman and John Harley Warner (eds.), *Locating Medical History. The Stories and Their Meanings* (Baltimore / London: Johns Hopkins University Press 2006): 53–73 and many of her other publications.

5 Johann Gromer, *Julius Leopold Pagel (1851–1912). Medizinhistoriker und Arzt* (Kölner medizinhistorische Beiträge 38) (Köln: Kohlhauser 1985); Dirk Friedrich Rodekirchen, *Karl Sudhoff (1853–1938) und die Anfänge der Medizin-Geschichte in Detuschland* (Diss. Med. Fak.) (Köln 1992); Michael Bliss, *William Osler: A Life in Medicine* (Oxford: University Press 1999); Elisabeth Berg-Schorn, *Henry E. Sigerist (1891–1957). Medizinhistoriker in Leipzig und Baltimore. Standpunkt und Wirkung* (Kölner medizinhistorische Beiträge 6) (Köln: Kohlhauser 1978); Elizabeth Fee and Theodore M. Brown (eds.), *Making Medical History: The Life and Times of Henry E. Sigerist* (Baltimore / London: Johns Hopkins University Press 1997).

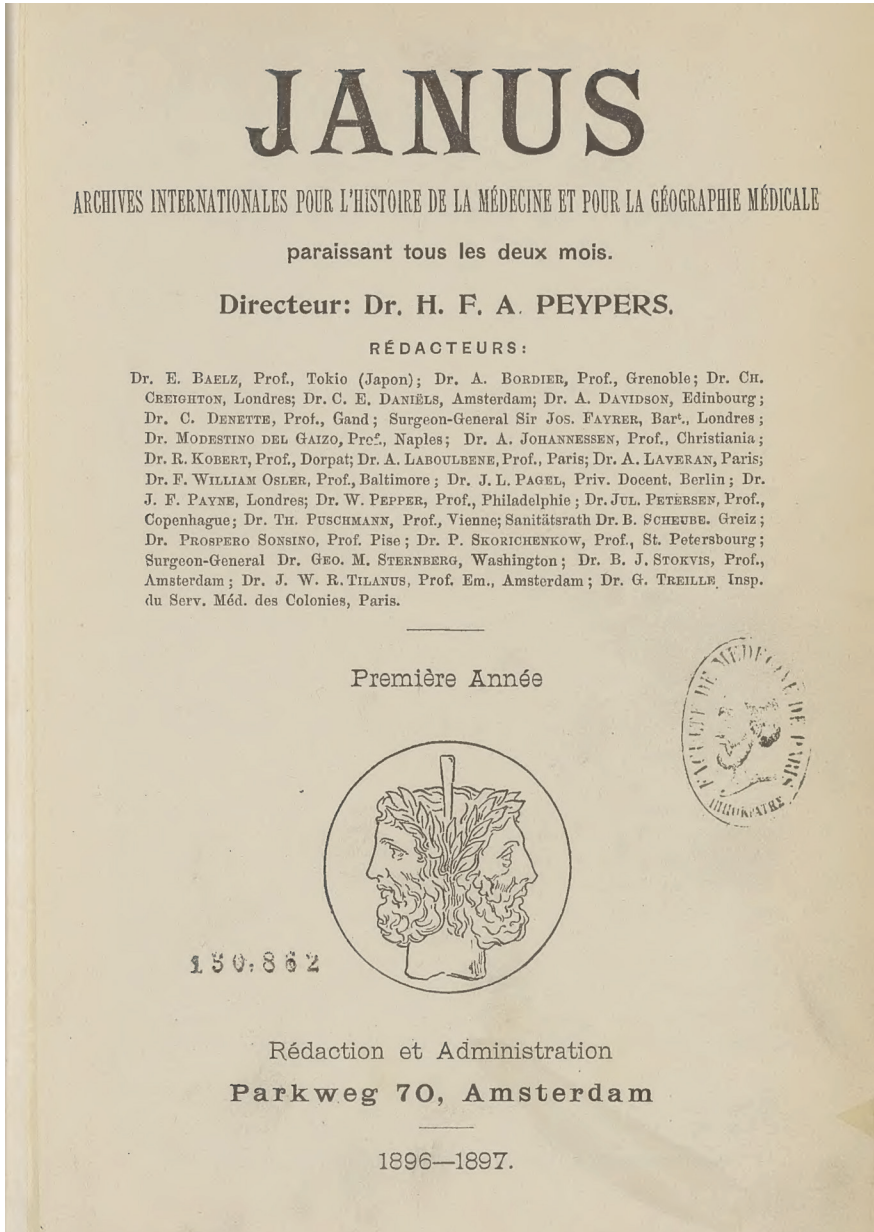


FIGURE 1.1 Title page of the first issue of the leading journal for medical history *Janus*. *Archives internationales pour l'histoire de la médecine et pour la géographie médicale* 1 (1896-1897).

SOURCE: INTERNET ARCHIVE, BIUSANTE\_130862X1896\_1897, [HTTPS://ARCHIVE.ORG/DETAILS/BIUSANTE\\_130862X1896\\_1897/MODE/2UP](https://archive.org/details/BIUSANTE_130862X1896_1897/MODE/2UP) (ACCESSED ON 8.2.2024)

teaching subject. By using original teaching materials and comparing different approaches within courses on the history of medicine in a concrete way, we can make important additions to existing scholarships that focus primarily on leading figures and their role as scientists and researchers and, to a lesser extent, as teachers. Firstly, we probe the different arguments put forward in favour of teaching medical history and the ways in which professors teaching this subject attempted to achieve their educational goals. This is done by studying the inaugural lectures of this large group of newly appointed professors from around 1900, together with the textbooks that many of them used. The wide geographical scope adopted in this chapter, including the United States and the entire European continent from Great Britain to Russia and from Sweden to Italy, enables us to show the varied character of these arguments, as well as the many similarities.

Secondly, we argue that, in general, these professors took a paradoxical stance towards the use of medical history as a way of dealing with uncertainty. The reasoning that this discipline could increase the sensibility for scientific doubt among the students was not new, but in contrast to their predecessors, representatives of the discipline now claimed that this attitude itself could become a new means in the unstoppable road to medical progress; a claim that contradicted their own plea to take distance from any possible dogma. During the interwar period, the historiographical approach characterised by a naïve belief in almost inevitable progress was labelled “The Whig Interpretation of History”.<sup>6</sup> Jacalyn Duffin and many others have shown the long-term impact of this tradition within the history of medicine and science, even up to today.<sup>7</sup> Precisely because this attitude has remained so deeply ingrained in the identity of this discipline, it is important to clarify how, for *fin de siècle* medical historians, the history of medicine can contribute to medical progress and increase an openness towards scientific doubt.

Thirdly, we examine how the three dominant university traditions in Europe during the nineteenth century were reflected in the different approaches towards the teaching of medical history. We claim that the shared positivist attitude was applied in a very different way in the French utilitarian tradition, the German philosophical approach of cultural history, or the Anglo-American emphasis on liberal education, even though all agreed on the fundamental

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6 Herbert Butterfield, *The Whig Interpretation of History* (London: G. Bell and Sons 1931).

7 E.g. Jacalyn Duffin, “A Hippocratic Triangle: History, Clinician-Historians, and Future Doctors”, in: Huisman and Warner (eds.), *Locating Medical History* (2006): 432–449 and Steven Weinberg, “Keeping an Eye on the Present – Whig History of Science”, in: Idem, *Third Thoughts* (Cambridge, MA: Belknap Press of Harvard University Press 2018): 55–66.

fallibility of medicine and that the history of medicine could help in dealing with it.

## 1 History of Medicine under Threat from the 1850s

Kurt Sprengel, the Halle physician and professor of botany, is generally accepted as the founding father of modern medical history.<sup>8</sup> In his five-volume *Versuch einer pragmatischen Geschichte der Arzneikunde* [Essay on a Pragmatic History of Medicine] (1792–1803), he demonstrated how contemporary physicians could learn from the past, and that history could thus be of huge practical value to them. According to Sprengel, history protects against all one-sidedness in judgment by teaching that truth can also lie in the most diverse and strangest of opinions. History makes one tolerant of those who think differently, whilst also receptive to the good things they teach. In addition, one becomes suspicious of human power, even of one's own, and therefore modest. Furthermore, by learning from past errors, we learn to guard against the detours that lead to these mistakes. Lastly, but equally important, is that the history of medicine contributes to the general *Bildung* of the mind.<sup>9</sup> As with his contemporaries, *Bildung* for Sprengel pointed to a basic attitude of self-development in which students no longer accepted knowledge at face value, but instead sought to discover this knowledge for themselves.<sup>10</sup>

This focus on the importance of *Bildung* typifies the response in Prussia to the eighteenth-century 'crisis of the university', in which they were accused of being detached from the modern world. They were criticised for acting primarily as servants of the church, and not sufficiently incorporating modern discoveries that originated mainly within the newly established scientific academies. Their stubborn adherence to Latin as a language of instruction came to represent the obsolete and irrelevant nature of university education. The Prussian neo-humanist answer to this crisis was to strive for the *Bildung* of the individual, by actively engaging the student in individual research, rather than simply passing on existing and directly usable knowledge. In France, the answer to

8 Frank Huisman and John Harley Warner, "Medical Histories", in: Idem (eds.), *Locating Medical History* (2006): 5.

9 Werner Friedrich Kümmel, "Dem Arzt nötig oder nützlich? Legitimierungsstrategien der Medizingeschichte im 19. Jahrhundert", in: Frewer and Roelcke (eds.), *Die Institutionalisierung der Medizinhistoriographie* (2001): 77–78.

10 Dietrich Benner, *Wilhelm von Humboldts Bildungstheorie: eine problemgeschichtliche Studie zum Begründungszusammenhang neuzeitlicher Bildungsreform* (Weinheim: Beltz Verlag 1990).

the ‘crisis of the university’ consisted in a shift towards an increasingly practice-based, useful vocational training.<sup>11</sup>

In both cases, the reforms that were introduced completely changed the character of medical education, as well as the place of medical history within this training. As Sigerist already explained in 1947,

until the nineteenth century, medical history on both continents (Europe and North America) was an integral part of medicine. The approach to the past was not a critical historical one, but was taken from a medical point of view. Books were read for their factual content, irrespective of the period at which they were written. Doctors read them in order to learn how to treat their patients, and they thought they could gain practical knowledge from Hippocrates as well as Sydenham.<sup>12</sup>

This kind of attitude was no longer tenable in view of the slow introduction of modern innovations, such as hands-on bedside teaching, and the inclusion of experimental sciences like physics and chemistry in the medical curriculum. Whereas medical teaching had been predominantly historical in character, education was no longer limited to scrutinizing books, but instead concentrated on study through both observation and experiment, the results of which varied daily, as experience went through a renewal process from one day to the next.<sup>13</sup> Knowledge of the past therefore became history, and medical history developed into a separate subject, one that could still be extremely useful, as Sprengel sought to prove with his pragmatic approach.

As reforms spread throughout Europe, the introduction of the history of medicine as a separate teaching subject was not limited to various Prussian or Paris-based universities. At the University of Copenhagen, for instance, medical history was taught to medical students from 1802.<sup>14</sup> In Vienna, Max Neuburger was proud to announce in his inaugural lecture of 1904 that the

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11 See, for instance, Pieter Dhondt, “Cultures”, to be published in: Heather Ellis and Tamson Pietsch, *A Cultural History of Higher Learning. Vol. 5. 1760–1900* (London: Bloomsbury 2025).

12 Quoted in: Fred B. Rogers, “John Morgan’s Outlines of a General History of Physic (1765): Medical History in 18th Century Academic Medical Teaching”, *Journal of the History of Medicine and Allied Sciences* 14 (1959), no. 4: 445.

13 Dhondt, “Cultures” (2025).

14 Wolfram Kock, “Medicinens historia i läkarutbildningen”, *Särtryck ur Svenska Läkartidningen* 50 (1953), no. 21: 1152.

Viennese tradition of the history of medicine went as far back as 1808.<sup>15</sup> And in Naples, a chair for the history of medicine and medical bibliography was established as early as 1811.<sup>16</sup> However, apart from a few exceptions such as Berlin<sup>17</sup> and Geneva, in almost all of these cases there were several long- or short-term interruptions in the teaching of the history of medicine.

From the 1840s onwards, courses in the history of medicine were increasingly questioned and often abolished. The general view was that medicine had been successfully transformed into a scientific and experimental discipline. The clinic and the laboratory had become the central sources of medical knowledge, replacing the library. Some physicians who shared Sprengel's interest in medical history, such as Justus Hecker and Emil Isensee – who had both been active in Berlin –, attempted to broaden Sprengel's pragmatic apology by adding historical pathology to the picture. They specifically aimed to gain a better understanding of epidemic diseases by examining past cases.<sup>18</sup> However, as in previous scenarios, the gap between present and past medical knowledge only seemed to widen, as claims that contemporary epidemics could be tackled more efficiently by studying epidemiological patterns from the past convinced few. The criticism was that this process was often carried out in a far too speculative manner. Students had become alienated from the history of medicine as a discipline, it no longer provided them any useful lessons. Moreover, it was difficult to incorporate the subject into an ever more overcrowded curriculum, as other subjects, in particular natural sciences, became increasingly important.<sup>19</sup>

## 2 The *fin de siècle* Boom of the Discipline

Gradually, from the late 1880s, an opposing movement began to emerge. The dominant reductionist approach towards disease had gone so far that many leading physicians began “to worry that the transformation of medicine into a science, as well as the epistemological and technical successes of the new

15 Max Neuburger, “Die Geschichte der Medizin als akademischer Lehrgegenstand”, *Wiener klinische Wochenschrift* (1904), no. 45: 1217.

16 Modestino Del Gaizo, “L'enseignement de l'histoire de la médecine aux universités italiennes pendant la seconde moitié du dix-neuvième siècle”, *Janus* 4 (1899): 353.

17 See Inge Klemperer, *Der medizinhistorische Unterricht an der Berliner Universität von 1810 bis 1900* (Unpublished doctoral dissertation) (Göttingen 1965).

18 Johanna Bleker, “Die historische Pathologie, Nosologie und Epidemiologie im 19. Jahrhundert”, *Medizinhistorische Journal* 19 (1984): 33–52.

19 Kümmel, “Dem Arzt nötig oder nützlich?” (2001): 79–81.

sciences, may have been bought at too great a price".<sup>20</sup> At the beginning of his course in 1904, Neuburger pointed to the harsh one-sidedness of the modern school. As far as he was concerned, physicians had increasingly felt the need to take distance from the purely scientific approach, that it was imperative that they again became aware that they were not merely treating diseases, but that they were treating sick people, asserting that "precisely the advancing science showed aberrations of the supposedly absolute exactness." As a result, Neuburger saw that the emergence of the history of medicine as a separate discipline around 1800 and its revival almost a century later, followed automatically from the development of medicine itself.<sup>21</sup> Even though the argument of medical history being a counterweight to the overdriven shift towards scientific materialism was of crucial importance, later in the chapter we will show that there were also other reasons for reintroducing the history of medicine as a teaching subject.

The overall view at the beginning of the twentieth century was that the re-establishment of the Paris chair in the history of medicine and surgery in 1870 was the beginning of the renaissance of the discipline. Daremberg (see Figure 1.2) was exceptionally well-suited for the job, and his two-volume *Histoire des sciences médicales* [History of Medical Sciences] published in 1870 remained a standard reference point in the decades to come. Having successfully defended his dissertation on Galen's anatomy, physiology and pathology of the nervous system in 1841, Daremberg relocated to Germany in order to collect unpublished ancient texts, remaining there for three years. Upon his return to France, he took up the position of librarian, firstly at the Académie de Médecine, and then at the Bibliothèque Mazarine. By the time Daremberg took on the role of Paris chair in 1870, he had already given a course on the history and literature of medical sciences at the Collège de France in 1847, doing so again regularly from 1864 onwards. His sudden death, barely two years after his appointment to the position, left a huge void.<sup>22</sup>

The chair remained, but with five professors succeeding one another in little more than seven years, sadly there was no continuity. It also seemed that the position was often used as a springboard to a more prestigious position.<sup>23</sup> One of Daremberg's successors, Gilbert Ballet, publicly admitted in his

20 Huisman and Warner, "Medical Histories" (2006): 10.

21 Neuburger, "Die Geschichte der Medizin als akademischer Lehrgegenstand" (1904): 1218.

22 Charles Coury and Théodore Vetter, "A propos du Centenaire de la Chaire d'Histoire de la Médecine et de la Chirurgie à la Faculté de Médecine de Paris", *Histoire des sciences médicales* (1970), no. 4: 94.

23 Alain Lellouch, "La chaire française d'Histoire de la Médecine: cent ans d'histoire (1795–1898)", *Histoire des sciences médicales* 25 (1991), no. 4: 257.



FIGURE 1.2 Charles Victor Daremberg occupied the re-founded chair in the history of medicine in Paris between 1870 and 1872. Particularly his two-volume *Histoire des sciences médicales* [History of medical sciences] published in 1870 remained a standard reference point in the decades to come.

SOURCE: PARIS, BANQUE D'IMAGES DE LA BIBLIOTHÈQUE  
 INTERUNIVERSITAIRE DE SANTÉ, CIPA0729, WIKIMEDIA COMMONS,  
[HTTPS://COMMONS.WIKIMEDIA.ORG/WIKI/FILE:DAREMBERG,\\_CHARLES\\_VICTOR\\_%281817-1872%29\\_CIPA0729.JPG](https://commons.wikimedia.org/wiki/File:DAREMBERG,_CHARLES_VICTOR_%281817-1872%29_CIPA0729.JPG) (ACCESSED ON 8.2.2024)

inaugural lecture in 1908 that he was simply not qualified for the job, something that was clearly not false modesty. Ballet, who had trained as a psychiatrist and had lectured on the subject since 1900, claimed that he compensated for his lack of knowledge on the history of medicine with a passion for history.<sup>24</sup> The Paris chair was by no means the only one to suffer from such a

<sup>24</sup> Gilbert Ballet, *Faculté de médecine de Paris. Chaire d'histoire de la médecine et de la chirurgie. Leçon d'ouverture* (Paris: Jean Gainche 1908): 7.

problem. *Janus*, the leading journal for medical history, complained that a professor in Kiel was a professor in the history of medicine in title only, and that this was far from a random case.<sup>25</sup>

The editors of *Janus* viewed the University of Vienna in an entirely different light, believing that their strong position on the history of medicine was a wonderful example compared to the difficulties that the subject was facing in Paris. Whereas in Paris, “the chair was often occupied by excellent scientists in some field of medicine, yet without having distinguished themselves in the field of history; in Vienna, with Mr. Puschmann, the history of medicine was taught by a historian, devoted to his branch of science and exclusively to this one.”<sup>26</sup> Theodor Puschmann had given substantial drive to the development of this medical sub-discipline in Vienna as both a teacher and researcher from 1879 – less than a decade after Daremberg’s appointment in Paris – until his death, twenty years later.<sup>27</sup> As a tribute to him, his successor Neuburger, a one-time student of Puschmann, copied the title of Puschmann’s inaugural lecture when he took over exactly 25 years later, i.e. “Die Geschichte der Medizin als akademischer Lehrgegenstand [The History of Medicine as an Academic Subject]”.<sup>28</sup>

In other German-speaking areas around 1900, the history of medicine was a well-established sub-discipline (sometimes in combination with pharmacology),<sup>29</sup> with courses in Berlin, Leipzig, Bonn, Breslau, Erlangen, Göttingen, Jena, Rostock, Würzburg; Basel and Zürich (Switzerland); Graz, Prague, and Budapest (Austro-Hungarian Empire); and Dorpat (Russian Empire).<sup>30</sup> Nevertheless, it was absent as a separate subject in the German and Austrian state examinations<sup>31</sup> – which students had to successfully pass in order to practice

25 “Les professeurs titulaires d’histoire de la médecine”, *Janus* 7 (1902): 614.

26 Raphaël Blanchard, “L’enseignement de l’histoire de la médecine à la faculté de Paris”, *Janus* 8 (1903): 584.

27 Gabriela Schmidt, “Theodor Puschmann und seine Verdienste um die Einrichtung des Faches Medizingeschichte an der Wiener Medizinischen Fakultät”, in: Frewer and Roelcke (eds.), *Die Institutionalisierung der Medizinhistoriographie* (2001): 91–101.

28 Theodor Puschmann, “Die Geschichte der Medizin als akademischer Lehrgegenstand”, *Wiener Medizinische Blätter* 2 (1879): 1069–1072, 1093–1096; Neuburger, “Die Geschichte der Medizin als akademischer Lehrgegenstand” (1904): 1214–1219. See also Karl Sudhoff, “Theodor Puschmann und die Aufgaben der Geschichte der Medizin. Eine akademische Antrittsvorlesung”, *Muenchener medizinische Wochenschrift* (21.8.1906): 1669–1673.

29 Marcel H. Bickel, “Medizingeschichte und Pharmakologie. Aspekte einer Geschichte von Beziehungen”, *Gesnerus. Swiss Journal of the History of Medicine and Sciences* 58 (2001): 76–89.

30 Modestino Del Gaizo, “Dell’ insegnamento della Storia della medicina”, in: *Rivista di Storia delle scienze Mediche e naturali* 1 (1910): 31.

31 “L’histoire de la médecine aux universités allemandes”, *Janus* 6 (1901): 59.

medicine –, even though Puschmann had insisted on its inclusion since 1879.<sup>32</sup> In Spain also, the course entitled ‘The critical history of medicine’ was not compulsory for all medical graduates, only for those who aspired to a doctoral degree and thus to an academic career.<sup>33</sup> The gradual increase in numbers of doctoral students led to the further strengthening of the chair at the University of Madrid, which had already been established in 1845. In Italy around 1900, chairs in the history of medicine existed in Turin, Siena, Pisa and Naples. In the same period, teaching in medical history continued or began at the universities of Coimbra, Copenhagen, Geneva, Moscow, and the Saint Petersburg Military Medical Academy.<sup>34</sup> Moscow also had a separate medical history museum, as well as a book series devoted to the subject from 1884 onwards.<sup>35</sup>

Sweden, united with Norway at the time, was something of an exception to the rule. Already since the introduction of the education order in 1874, the history of medicine had been included in the first-degree examination at the Karolinska Institutet. However, against the international trend of the time, the course was discontinued in 1904 mainly because the curriculum threatened to become overcrowded and that the teaching of it had become sporadic and that students did not prepare properly for the examinations.<sup>36</sup> In the same year, Evert Cornelis van Leersum began as professor of the history of medicine in Leiden, after a decades-long campaign within the faculty council which recognised the desirability of ‘Historiae Medicinae’ but did not wish to appoint more teaching staff, a position on which they stood firm.<sup>37</sup> Teaching in the subject was occasionally organised in the form of an optional course at Belgian universities during the last quarter of the nineteenth century (usually following the German example), but they were gradually discontinued due to a lack of students.<sup>38</sup> The Grand Duchy of Finland (a semi-autonomous part of the Russian Empire) also lagged behind in this respect, despite German influence being strong there too. As in Sweden, the most probable explanation was the

32 Puschmann, “Die Geschichte der Medizin als akademischer Lehrgegenstand” (1879): 1095.

33 Rafael Ulecia, “L’enseignement de l’histoire de la médecine en Espagne”, *Janus* 8 (1903): 33–34.

34 Del Gaizo, “Dell’ insegnamento della Storia della medicina” (1910): 30.

35 Tatjana V. Zhuravleva, Boleslav L. Lichterman and Yuri P. Lisitsyn, “Teaching History of Medicine at Russian Medical Schools: Past, Present, and Future”, *Croatian Medical Journal* 40 (1999), no. 1: 25.

36 Kock, “Medicinens historia i läkarutbildningen” (1953): 1152 and Carina Carhled Ydhag, *Uppkomsten av ett professionellt medicinsk fält* (Stockholm: University Press 2020): 78–79.

37 Harry F.P. Hillen, “Barbarij: opleiding zonder medische geschiedenis”, *Nederlands Tijdschrift voor Geneeskunde* 164 (2020), no. 10: D4309: 1.

38 Pieter Dhondt, “Die Berliner Universität als Idealbild für belgische Studenten bis zum Ende des Ersten Weltkriegs”, *Historische Zeitschrift* 296 (2013), no. 3: 647.

very broad curriculum and exceptionally long study-path. The breadth of the curriculum is partly explained by the fact that, in a thinly populated but large country with a small medical work force, general practitioners were seldom able to consult a specialist, but did need a broad all-around education.<sup>39</sup>

Medical history entered the British curriculum rather late also. Again, pleas to integrate the history of medicine into the curriculum had been heard from the 1870s,<sup>40</sup> but nothing materialised apart from a few occasional lectures, or talks and presentations given at medical societies or to the general public. The Edinburgh extra-academical school was the first to organise such lectures in 1857. Alexander Henry followed suit in 1860 at the Grosvenor Place School of Medicine in London.<sup>41</sup> And in 1903, Joseph Frank Payne delivered two so-called Fitz-Patrick lectures on English medicine in the Anglo-Saxon times at the London Royal College of Physicians.<sup>42</sup> It took until 1908 for the general boom of the discipline to reach Britain, as evidenced by the creation of the first lectureship in the history of medicine at Edinburgh University that year. In his instantly popular lectures, John Dixon Comrie focussed on ancient medicine. He illustrated his talks with a large collection of lantern slides that he had assembled during his many trips to the Eastern Mediterranean.<sup>43</sup>

Apart from in the Balkans, the history of medicine was taught in all European countries before the First World War, and it also gained popularity outside of Europe during the same period.<sup>44</sup> Cordell was somewhat disappointed that his survey among American universities showed that only his home institution, the University of Maryland, had a professorship in the subject, and that only being an honorary one. Nevertheless, courses were offered in at least six

39 Pieter Dhondt, "Transnational Currents in Finnish Medical Education, (c. 1800–1920), Starting from a 1922 Discourse", *Paedagogica Historica. International Journal of the History of Education* 48 (2012), no. 5: 697.

40 E.g. "The Study of the History of Medicine", *The British Medical Journal* 2 (1876), no. 819: 355.

41 Alexander Henry, "Lectures on the History of Medicine. Delivered at the Grosvenor Place School of Medicine", *The British Medical Journal* (1860), no. 169: 219–223.

42 Neil H. Metcalfe and E. Stuart, "A Short History of Providing Medical History within the British Medical Undergraduate Curriculum", *Medical Humanities* 40 (2014), no. 1: 31–37; Joseph Frank Payne, *The Fitz-Patrick Lectures for 1903. English Medicine in the Anglo-Saxon Times* (Oxford: Clarendon 1904).

43 Joy Pitman, "John Dixon Comrie: His Lectures and Journal", *Proceedings of the Royal College of Physicians of Edinburgh* 23 (1993), no. 1: 65. On the use of lantern slides in education, see Nelleke Teughels and Kaat Wils, *Learning with Light and Shadows. Educational Lantern and Film Projection, 1860–1990* (Turnhout: Brepols 2022).

44 For linguistic and substantive reasons, we limit ourselves here to the Anglo-American world.

universities. Most of these courses had begun during the 1890s; some were full lecture courses, others were limited to just a few sessions; all but one were optional; and none had an examination.<sup>45</sup> Peypers, added that four other American institutions offered some teaching in medical history in 1901, these being Philadelphia, Minneapolis, Boston, and the Woman's Medical School in Chicago. Sarah Hackett Stevenson, who taught in the latter institution and was the only female lecturer on the subject, combined history with ethics – a combination that, according to Peypers, was unique and highly interesting.<sup>46</sup> Sydney (Australia) and the McGill University of Montreal (Canada) complete the list of Anglophone universities with teaching in medical history before 1914.

Henry Sigerist, commenting on the development of the field in 1940, regarded the establishment of medical history at McGill University as an important milestone in the institutionalisation of the field, as teaching at McGill was coupled with the founding of the Osler Library, which offered excellent research opportunities.<sup>47</sup> Osler himself combined his annual lecture courses at Johns Hopkins University, launched in 1899, with monthly meetings of The Historical Club, intended to stimulate the general interest in the subject.<sup>48</sup> His private collection formed the nucleus of the medical history library named after him. Some chairholders began to collect the research work of their doctoral students in a specialised publication series. Societies for the history of medicine were founded, often with their own journals. Already in 1899, within the framework of his own international journal *Janus*, Peypers launched the project to establish an international society of medical history and geography. As a result of the uneasy mix of international cooperation and national competition, which was all too common in that ambiguous period of the *fin de siècle*,<sup>49</sup> Peypers' initiative was postponed until 1921. As the German medical historian Andreas Frewer has shown, personal feuds, especially Sudhoff's feeling of being excluded, played a role here.<sup>50</sup>

45 Cordell, "The Importance of the Study of the History of Medicine" (1904): 270–272.

46 Hendrik F.A. Peypers, "L'avancement de l'histoire de la médecine", *Janus* 6 (1901): 492.

47 Henry E. Sigerist, "Medical History in the Medical Schools of Canada", *Bulletin of the History of Medicine* 8 (1940), no. 2: 303–308.

48 William Osler, "A Note on the Teaching of the History of Medicine", *The British Medical Journal* (1902), no. 2: 93.

49 See, for instance, Dhondt, "Cultures" (2025).

50 Andreas Frewer, "Biographie und Begründung der akademischen Medizingeschichte: Karl Sudhoff und die Kernphase der Institutionalisierung 1896–1906", in: Frewer and Roelcke (eds.), *Die Institutionalisierung der Medizinhistoriographie* (2001): 116–119.

### 3 Why Teach the History of Medicine?

In their arguments for introducing courses in the history of medicine, many of the key figures around 1900 returned to Sprengel, who believed the study of the past helped to understand the present. They often referred to the organic development of medical knowledge, such as the London physician and historian Charles Singer who claimed that obviously all “organic products are the outcome of their history, and can only be understood when their history is known.”<sup>51</sup> The Madrid professor Ildefonso Rodríguez y Fernández presented the same idea in his textbook by quoting the late-medieval French surgeon Guy de Chauliac: “History [...] is like a bold giant who carries a child on his robust shoulders; that child is the present generation; from century to century the giant grows, and from century to century the child carried on his shoulders discovers broader horizons.”<sup>52</sup> The Berlin professor Pagel argued in a similar vein that “history thus not only helps us to understand the factual knowledge of the past, but also to discover new facts – in the same way as the embryological method has opened up many obscure fields”. Like many of his colleagues he also compared medical history with anatomy by referring to the motto on the gates of the dissecting room in Paris: “*Hic locus est ubi mors gaudet succurrere vitae*. [This is the place where death gladly comes to the aid of life.]” (see Figure 1.3). In Pagel’s view “there is no better motto for the gate leading into medical history.”<sup>53</sup>

Examples of how practicing physicians were able to learn from the past were significantly more concrete than they had been at the beginning of the nineteenth century. First and foremost, current practitioners should be inspired by the holistic approach of their predecessors, especially the ancient Greeks. Puschmann confirmed this approach, writing in his hugely influential textbook from around 1900 that Hippocrates and Greek medicine in general “wanted to treat the sick, not the diseases. The great healing artists of all time have had this goal in common.”<sup>54</sup> “Modern textbooks rely too much on pure science, without taking the personality of the sick person sufficiently into account,” confirmed the editorial in *Janus*.<sup>55</sup> More tangibly, proponents of medical history evoked a plethora of past beliefs and therapies that had been long forgotten, only to be rediscovered

51 Charles Singer, “The Teaching of Medical History”, *The British Medical Journal* (1919), no. 2: 142.

52 Ildefonso Rodríguez y Fernández, *Introducción al estudio de la historia de las ciencias médicas* (Havana: Imp. El Correo Militar 1884): 87.

53 Quoted in: Walter Pagel, “Julius Pagel and the Significance of Medical History for Medicine”, *Bulletin of the History of Medicine* 25 (1951): 221–222.

54 Max Neuburger and Julius Pagel, *Handbuch der Geschichte der Medizin* (Jena: Gustav Fischer 1902): 7.

55 “Utilité de l’histoire de la médecine”, *Janus* 5 (1900): 369.



FIGURE 1.3 The motto “*Hic locus est ubi mors gaudet succurrere vitae*. [This is the place where death gladly comes to the aid of life.]” did not only decorate the gates of the dissecting room in Paris. It also appeared on the pediment of the anatomical institute of the Berlin hospital Charité.

SOURCE: BIBLIOTHEK & SAMMLUNG MEDICAL HUMANITIES DES  
INSTITUTS FÜR GESCHICHTE DER MEDIZIN UND ETHIK IN DER MEDIZIN –  
UNIVERSITÄTSMEDIZIN CHARITÉ, IGM\_B\_1044

centuries later. In his call for the necessity of studying history in medical education, the Viennese physician Johan Karl Proksch gave multiple examples of misconceptions over the treatment of syphilis, his own speciality, which could easily have been avoided had physicians simply known their history.<sup>56</sup>

Such historical insights promoted a sense of modesty which, as Sprengel already commented on, was another benefit of medical history. What was new, was the awareness that medical history could simultaneously “educate the physician in conscious modesty” and “fill his consciousness with just pride in his often contested and self-sacrificing labours”, as stated by the German ophthalmologist Johann Hermann Baas. “As the history of medicine shows him [the physician] the inadequacy of medical knowledge and, in the majority of

56 Johan Karl Proksch, *Die Nothwendigkeit des Geschichtsstudiums in der Medicin. Ein Mahnruf* (Bonn: P. Hanstein 1901).

cases, the absolute nullity of medical skill in the struggle with the laws of an all-powerful nature, so it places before his eyes the unwearied struggles of the physicians of all ages," Baas continued.<sup>57</sup> Not to be discouraged by such disappointments and setbacks, Puschman and many others believed that the physician needed a high degree of idealism. "Here too, the history of medicine will lend you a helping hand; it will lift you up again when you tire in your humanitarian endeavours, give you courage and strength and hold shining examples from the past before your soul."<sup>58</sup>

The physician could find inspiration in his famous predecessors and take pride in the huge well of experiences and observations that the profession had collected. In reference to Baas, the Saint Petersburg professor Grigory Skoritschenko-Ambodik spoke of a real treasure chest to be found: "The sample of observations can be compared to a giant tree that grows more day by day. It is unjust to deprive oneself of such a treasure [...] on the pretext that the observations are not accurate and incomplete. Those gentlemen who express such an opinion have never had such old texts before their eyes."<sup>59</sup> Osler quoted the seventeenth-century English churchman and historian Thomas Fuller expressing the same idea: "History maketh a young man to be old, without either wrinkles or grey hairs; privileging him with the experiences of age, without either the infirmities or inconveniences thereof."<sup>60</sup>

A more frequently quoted author was Johann Wolfgang Goethe, and in particular his statement '*die Geschichte der Wissenschaft ist die Wissenschaft selbst* [the history of science is science itself]'. Not surprisingly, German-speaking representatives of the discipline, such as the Graz professor Viktor Fossel, especially referred to this statement as both a reiteration and confirmation of Sprengel's plea for the history of medicine as a contribution to general *Bildung*, albeit with one crucial difference, namely that *Bildung* now also included a research attitude. A physician needed to become not only an excellent practitioner, but also a broadly educated scholar, which required knowledge of history.<sup>61</sup> Again, the new reasoning aimed at a more concrete and practical usefulness.<sup>62</sup>

57 Johann Hermann Baas, *Outlines of the History of Medicine and the Medical Profession. Translated by Henry Ebenezer Handerson* (New York: J.H. Vail & co. 1889): 2.

58 Puschmann, "Die Geschichte der Medizin als akademischer Lehrgegenstand" (1879): 1094.

59 Skoritschenko-Ambodik, Grigory Grigoryevich, *Об изученіи исторіи медицины. Вступительная лекція ка курсу истории медицины* [On the Study of the History of Medicine. Inaugural Lecture for the Course of the History of Medicine] (Saint Petersburg: K.L. Ricker 1895): 113.

60 Osler, "A Note on the Teaching of the History of Medicine" (1902): 93.

61 Viktor Fossel, "Die Geschichte der Medicin und ihr Studium. Vortrag gehalten bei Eröffnung der Vorlesungen über Geschichte der Medicin an der Universität Graz am 26. October 1898", *Wiener klinische Wochenschrift* (1898), no. 45: 1028.

62 Kümmel, "Dem Arzt nötig oder nützlich?" (2001): 83.

The Parisian professor Édouard Brissaud formulated a widely held opinion that, as a human science, history of medicine could make a valuable contribution to developing the writing skills of medical students.<sup>63</sup> Even more practical was Sudhoff's plea for the cooperation of physicians and the state in the fight against major epidemics. The history of diseases was at least as important as bacteriology in the remediation of cities and in improving legislation.<sup>64</sup> Many of his colleagues shared the view that historical epidemiology, in combination with historical and comparative pathology, could make an important contribution to understanding how the great epidemics arise, migrate and disappear.<sup>65</sup> By substantiating this claim with concrete examples, they were able to convince a much larger part of the public than their predecessors in the 1850s. As mentioned above, Proksch did so with regard to the treatment of syphilis. Van Leersum illustrated this by claiming that knowledge of the history of medicine would help to correctly assess the long-term problem of thyroid enlargement caused by lack of iodine in the water supply in the Netherlands, and to deal with that problem.<sup>66</sup>

Another argument that the proponents of medical history around 1900 shared with their predecessors was the belief that it increased tolerance towards other opinions and an openness to scientific doubt. Concretely, Pagel thought that the "so-called people's medicine cannot be understood without the light of medical history. It is history that teaches us tolerance towards traditional and vulgar remedies and the peculiar ideas that we meet with at the bedside." Given that the public was still convinced of the merits of the humoral theory, physicians could only understand the views of their clients with the help of the history of medicine, Léon Laloy (librarian at the Académie de médecine) duly agreed.<sup>67</sup>

This did not mean that physicians had to distance themselves from scientific medicine, quite the contrary. For Pagel, medical history was useful because it enhanced professional power in the battle against quackery in general, and the increasingly popular homeopathy in particular. "To combat it – and you are called upon to do so in the front-line – requires sure historical knowledge," he stated. "To separate error from truth and to do so convincingly in the eyes of the public means to demonstrate how what is new in these ideas is untrue

63 Édouard Brissaud, *Histoire de la Médecine. Leçon d'ouverture* (Paris: Progrès médical 1899): 11–13.

64 Karl Sudhoff, "Wert und Aufgaben der Medizingeschichte im Studium und Berufsleben des Arztes (1906)", in: Idem, *Skizzen* (Leipzig: C.W. Vogel 1921): 4.

65 Neuburger, "Die Geschichte der Medizin als akademischer Lehrgegenstand" (1904): 1218.

66 In: John Dixon Comrie, "Section of the History of Medicine", *The British Medical Journal* (1927), no. 2: 209.

67 "Utilité de l'histoire de la médecine", *Janus* 5 (1900): 369–370.

and what is true is not new, but taken over from scientific medicine and fraudulently clad in a new garb.”<sup>68</sup> His Viennese colleague Neuburger took a more open attitude towards homeopathy and conceded that it had its merits, for instance, in the struggle against dogmatic therapies or the rejection of ontological concepts of diseases.<sup>69</sup>

Neuburger’s views upon homeopathy can be linked directly to the oft repeated and most innovative argument in favour of the discipline during that period, namely that medical history can act as a counterweight to the one-sidedly mechanical and reductionist approach of modern scientific medicine. “Not infrequently, the constant activities in the dissection room, in the laboratory, and in the clinic leads to a certain narrow-mindedness, not to say desolation of the mind,” Fossel stated. “All too early, the young student gets used to only seeing as useful what he can grasp with his senses, while the mental processing of what he has learned is hardly conscious.”<sup>70</sup> Put differently, the history of medicine could help to bridge the gap between medicine and human sciences, act as a dam against excessive specialisation and thus contribute to the ideal of the unity of sciences.<sup>71</sup> Dominique Barduzzi – professor in the history of medicine in Siena – shared the same view on this latter point with his German counterparts, though this did not stop him from opposing the dominant Teutonic empire in his defence of the history of medicine in 1916.<sup>72</sup> And Singer repeated the same reasoning after the war, that “instead of further overburdening the curriculum, the history of medicine would do something to lighten it by giving it meaning and by connecting its various parts.”<sup>73</sup> At the same time, he was well aware of how much German scientists had advanced this argument.

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68 Pagel, “Julius Pagel and the Significance of Medical History for Medicine” (1951): 224

69 Heinz-Peter Schmiedebach, “*Bildung* in a Scientific Age. Julius Pagel, Max Neuburger, and the Cultural History of Medicine”, in: Huisman and Warner (eds.), *Locating Medical History* (2006): 81.

70 Fossel, “Die Geschichte der Medicin und ihr Studium” (1898): 1030.

71 Concerning the ideal of the ‘*Einheit der Wissenschaften*’ within the nineteenth-century German university model, see, for instance, Sylvia Paletschek, “Die Erfindung der Humboldtschen Universität: die Konstruktion der deutschen Universitätsidee in der ersten Hälfte des 20. Jahrhunderts”, *Historische Anthropologie* 10 (2002), no. 2: 183–205.

72 Dominique Barduzzi, “Importanza delle scienze storiche ed in particolare della storia della medicina”, *Rivista di storia critica delle scienze mediche e naturali* 7 (1916): 177–190.

73 Singer, “The Teaching of Medical History” (1919): 142.

#### 4 Paradoxical Attitude towards the Use of Medical History as a Way of Dealing with Uncertainty

Medical history functioned not only as a mediator between medicine and the humanities, but, according to Laloy, also as an intermediary between two camps of physicians: “some, carried away by a thoughtless enthusiasm for all innovations; [...] the others, having become sceptical at seeing this rapid succession of illnesses and remedies which dethrone each other, confine themselves to indifference and let nature take its course.”<sup>74</sup> Many other proponents of the discipline shared this conviction that courses in the history of medicine could help students to take some distance from the hypes of the day, without lapsing into scepticism. As early as in 1854, the Penn Medical University of Philadelphia motivated the introduction of such a course with the need to shield the student “against the thousand and one fallacies of the day”.<sup>75</sup> Sixty years later, Cordell’s view that “we of this age are too much carried away with the rage for novelty,” was shared by many. “We seem to be drifting more and more into mere machines, mere worshipers of physical science.”<sup>76</sup> History of medicine could offer the necessary time for reflection, he claimed. “It helps us to a clearer judgement between the fact and fancy of our own time,” Comrie agreed.<sup>77</sup>

As a result, the history of medicine as a discipline could and should function as a barrier against any form of dogmatism in the present, by providing examples from the past of the risks of adhering to dogmas. In his inaugural lecture, Brissaud elaborated on this common message by focussing on how, over many centuries, the humoral theory “was like a Bible whose letter you had to accept. Because doubting the letter is doubting the spirit.”<sup>78</sup> He explained how history has shown how important, but also how difficult it was for figures such as Paracelsus and Jan Baptist van Helmont to go against the prevailing

74 Léon Laloy, “Les erreurs médicales et l’histoire de la médecine”, *Janus* 5 (1900): 371.

75 Quoted in: Wyndham D. Miles, “An Early American Course in History of Medicine. The History of Medicine Course at Penn Medical University in 1854”, *Bulletin of the History of Medicine* 38 (1964), no. 3: 277.

76 Cordell, “The Importance of the Study of the History of Medicine” (1904): 273.

77 London, Wellcome Collection, ms. 1777: John Dixon Comrie, *Inaugural Lecture* (Edinburgh 1908): 6.

78 Brissaud, *Histoire de la Médecine* (1899): 20. Also medical students today sometimes have the impression that they are taught to consider their textbooks as the ‘medical Bible’. See Pieter Dhondt and Nancy Vansieleghe, “The Idea of a University: A Universal Institution in a Globalised World”, *History of Education & Children’s Literature* 9 (2014), no. 1: 193.

dogma. Brissaud himself only implicitly made the link between the need of a critical approach towards the dogma of the humoral theory in medieval and early modern Europe, and the need for a similar attitude of suspicion against what was perceived as the dogma of experimental, scientific medicine in his own time. For most of his colleagues though, it was entirely self-evident that this critical attitude towards dogmatism also needed to be applied to the then prevailing dogmas. Without questioning the merits of experimental science as such, Barduzzi, for instance, emphasised that “it is a very serious mistake to believe that experiment alone is the only means for the progress of medicine, and that it can be the only guide to educate minds.”<sup>79</sup>

If the history of medicine had done nothing more than demonstrated that there is no eternal truth and therefore that our current views must also be constantly questioned, it would have already proven its indispensable value. Jules Parrot and Skoritschenko-Ambodik formulated this conviction in an identical way in their inaugural lectures, delivered in Paris in 1877 and in Saint Petersburg in 1895 respectively: “there is no eternal truth, what is eternal is seeking truth.”<sup>80</sup> Cordell claimed that Hippocrates could function as a source of inspiration in this respect as well. On the one hand, “the great Father of Medicine [...] laid down the only true principles of progress – principles that, under the name ‘inductive method’, were falsely claimed for Lord Bacon 2,000 years later – and that all real advance has been coincident with their observance.” These principles were the study of medicine through observation and experiment. On the other hand, Hippocrates was already “conscious of the limitations of his knowledge and of the tendency of the human mind to err”. For Cordell and his allies, medical history created the necessary openness to cope with enduring uncertainty. “Experience will always be fallacious and judgment difficult, and it is not likely that error can ever be avoided,” he concluded.<sup>81</sup>

Precisely by adopting such an open attitude towards uncertainty and towards errors in past and present, the history of medicine was able to contribute to medical progress and thus gradually reduce the level of medical uncertainty. In this context, medical uncertainty was limited to epistemic uncertainty. When the proponents of medical history criticised what they labelled as the experimental dogma, they certainly did not question the notion of scientific

79 Barduzzi, “Importanza delle scienze storiche” (1916): 189.

80 Jules Parrot, “Histoire de la médecine. Faculté de Paris. Leçon d’ouverture”, *Progrès médical* (1877), no. 15: 284 and Skoritschenko-Ambodik, *Объ изучении истории медицины* (1895): 113.

81 Cordell, “The Importance of the Study of the History of Medicine” (1904): 269–270, 274 and 280.

progress. Quite the contrary.<sup>82</sup> By accepting the historical approach as an additional “means for the progress of medicine” – to quote Barduzzi again – they wanted to contribute to and to promote this progress. “History is doubly important and necessary because at the same time that it presents us with the truth, it provides us with and warns us against errors, showing us those pitfalls which we can avoid, just because others have fallen into them [...], in this way History becomes a very opportunistic lighthouse that shines the light on the course of reason in the dark sea of time,” Rodríguez y Fernández confirmed. Further, in his textbook he showed in a very accessible manner exactly what his students could gain from adopting a historical attitude.<sup>83</sup> Thus, while the history of medicine was put on the defensive due to the stronger orientation on natural sciences in the second half of the nineteenth century, around 1900 proponents of medical history built up their argumentation around the practical usefulness of the discipline and its contribution to medical progress, thus adopting to a certain extent the positivist point of view that threatened the field.

## 5 The French Utilitarian Tradition versus the German Philosophical Approach

The famous Daremberg had already embraced the positivist approach in 1870.<sup>84</sup> In his guiding textbook he presented how historians of medicine should implement the scientific methodology themselves. “If facts are the very substance of science, texts are [...] the substance of history. [In both cases] imagination<sup>85</sup> is equally dangerous.” Beginning with the fact that these texts contain various medical observations, “the experimental method [...] intervenes here in a double capacity: as a study of the text, and as a study of the fact or the description that this text transmits to us. [...] History thus understood, is

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82 Concerning this rhetoric of medical progress, see, for instance, John Harley Warner, “The History of Science and the Sciences of Medicine”, in: *Constructing Knowledge in the History of Science*, special issue of *Osiris* 10 (1995): 164–193.

83 Rodríguez y Fernández, *Introducción al estudio de la historia de las ciencias médicas* (1884): 88.

84 Charles Daremberg, *Histoire des sciences médicales comprenant l'anatomie, la physiologie, la médecine, la chirurgie et les doctrines de pathologie générale* (Paris: Baillière 1870): xiv–xv.

85 In this way he explicitly opposed views among Romantic historians for whom the imagination functioned as an important source of historical knowledge, see Jo Tollebeek, “Seeing the Past with the Mind’s Eye: The Consecration of the Romantic Historian”, *Clio: A Journal of Literature, History and the Philosophy of History* 29 (2000), no. 2: 167–191.

science itself," Daremberg stated, following the positivist method as developed by Emile Littré, and (to a lesser extent) Auguste Comte.<sup>86</sup> This starting point translated into a passion for manuscripts for Daremberg, who was a tireless collector of primary source material, especially from antiquity.<sup>87</sup>

"He was rather a *homme de cabinet*," the French medical historian Danielle Gourevitch concluded, and "not a good teacher." "As for the style of his lessons, it was judged too scholarly and clumsy."<sup>88</sup> Parrot formulated the same criticism as follows: "This work, undoubtedly very meritorious, is made for reading, but not for lessons." What was retained and continued was Daremberg's utilitarian approach. Precisely for this reason, in 1879, Professor Alexandre Laboulbène (like many of his successors) concentrated his teaching on historical pathology and, in particular, epidemic and parasitic diseases. For Laboulbène, current knowledge had to serve as the point of comparison. He therefore strove for direct benefit from his lessons by "starting from the present state, going back to the past, and always having in view the future."<sup>89</sup> This obsession with utility, which went back in some way to the French revolutionary period,<sup>90</sup> characterised the Paris chair of the history of medicine throughout the last quarter of the nineteenth century. The Parisian professors did not really succeed in conveying this ideal of usefulness, partly because their priorities clearly lay elsewhere, and partly because of an erudite approach in their teaching, in the wake of Daremberg. Generally, their teaching was antiquarian rather than practical. An important innovation that they introduced was the extension of historical source material from texts to material sources such as human bones.<sup>91</sup>

The teaching of the history of medicine around 1900 reflected the dichotomy between, on the one hand, the French focus on vocational utilitarian training, and, on the other hand, the broader attention for scientific schooling and research of the German model.<sup>92</sup> While German representatives of the discipline did not question the positivist belief in the capacity of the history of

86 Jean-François Braunstein, "Daremberg et les débuts de l'histoire de la médecine en France", *Revue d'histoire des sciences* 58 (2005), no. 2: 367–387.

87 Gourevitch, "Charles Daremberg" (2006): 56.

88 Gourevitch, "Charles Daremberg" (2006): 63.

89 Arnaud Routier, "Faculté de médecine – Cours d'histoire de la médecine. Leçon d'ouverture de M. le professeur Laboulbène", *La France Médicale* 26 (1879), no. 96: 764.

90 Dominique Julia (ed.), *Les enfants de la patrie. Education et enseignement sous la Révolution française* (Paris: Institut national de recherche pédagogique 1989).

91 Galanopoulos, *L'enseignement de l'histoire de la médecine à Paris au XIXe siècle* (2009) and Philippe Galanopoulos, "L'histoire de la médecine à Paris au XIXe siècle (1794–1914): l'échec d'un enseignement", *Histoire des sciences médicales* 47 (2013), no. 1: 65–70.

92 See Robert D. Anderson, *European Universities from the Enlightenment to 1914* (Oxford: University Press 2004).

medicine in contributing to scientific progress, they were much less utilitarian. Harking back to the ideal of *Bildung*, Sudhoff stated from the outset that one should not start by asking for proven benefits.<sup>93</sup> Such an approach inherently contradicted the university tradition. Future physicians had to be familiarised with the history of their science to prevent them from becoming mere artisans or routine practitioners.<sup>94</sup> Some outsiders, such as the Brussels professor Jean Joseph Crocq, believed that the pendulum sometimes swung too far, and that the German emphasis on theoretical schooling (in laboratories and institutes) was at the expense of solid practical training by the hospital bed.<sup>95</sup>

German professors in the history of medicine opted for a philosophical cultural-historical approach to put this *Bildungsideal* into practice;<sup>96</sup> this as an alternative to the French historical-pathological approach, through elaborating courses on the history of epidemic diseases, as Laboulbène did, or on the history of the brain and its associated diseases, as Jules Déjerine demonstrated.<sup>97</sup> Puschmann, the German-speaking equivalent of Daremberg, had initiated this tradition in the 1870s. In his inaugural lecture, he gave an extremely clear description of the objectives of the cultural history that he promoted:

The simple enumeration of events is not yet a story; rather, it must be shown how the facts followed one another and were conditioned by one another, how the law of causality between cause and effect asserted itself in them, and which factors guided the course of science. These conditions can only be fully understood if their representation is based on the time, place, nation, religion, political and intellectual struggles and concerns that influenced them. [...] In this way, the history of medicine expands into a history of the human spirit.<sup>98</sup>

It is true that a duality did gradually come into existence. In their research, historians of medicine increasingly followed general developments in the science of history, where historians had for some time already, rejected the topos '*Historia magistra vitae*'. However, in their teaching, most professors in medical

93 Sudhoff, "Wert und Aufgaben der Medizingeschichte", (1921): 1.

94 Fossel, "Die Geschichte der Medicin und ihr Studium" (1898): 1030.

95 Pieter Dhondt, *Un double compromis. Enjeux et débats relatifs à l'enseignement universitaire en Belgique au XIXe siècle* (Gent: Academia Press 2011): 291.

96 Schmiedebach, "Bildung in a Scientific Age" (2006): 77.

97 Jules Déjerine, "Ouverture des cours. Cours d'histoire de la médecine", *Progrès médical* (1902), no. 46: 390.

98 Puschmann, "Die Geschichte der Medizin als akademischer Lehrgegenstand" (1879): 1093.

history still searched for obvious connections between past and present.<sup>99</sup> On top of this, a split occurred between two groups among the German representatives of the discipline, with Baas and Sudhoff on the one side, and Pagel and Neuburger on the other. Sudhoff aimed to become the Leopold von Ranke of medical history and, as a historicist, he favoured a philological approach in which the sources spoke for themselves.<sup>100</sup> Pagel and Neuburger, in turn, aspired to continue Puschmann's philosophically grounded cultural history of medicine, including a more pragmatic function of these lectures in medical training.

The debate that broke out in 1904, following the bequest that Puschmann's wife made to the Leipzig Institute, provides an excellent illustration of this disagreement.<sup>101</sup> Whereas for Sudhoff, the money "was intended for 'the advancement of scholarly work,' principally research, not teaching", Max Seiffert (a Leipzig Privatdozent in paediatrics) spoke for those who wanted medical history to be relevant for future physicians.<sup>102</sup> Students should not be overwhelmed with names and dates, especially from antiquity, but made to understand how past developments had resulted in current scientific medicine and how, based on this knowledge of the past, they could themselves contribute to progress.<sup>103</sup>

The British model, which focussed on liberal education, is usually considered the third major university model. This model was somewhat less observable in the field of medical history, mainly because the subject was introduced in Britain comparatively late. In the United States, courses in the history of medicine were offered more regularly. These courses often combined the English-inspired ideal of the "gentleman-physician" well versed in the classical liberal arts" with a German orientation on cultural history.<sup>104</sup> Osler's lecture series, delivered at Yale University in 1913, successively dealt with Greek and medieval medicine, the renaissance and the rise of anatomy and physiology, the rise and development of modern medicine, and the rise of preventive medicine. The course aimed to be "an inspiring vista [...] of the evolution of medicine, a realization of what devotion, perseverance, valor and ability on the part of physicians have contributed to this progress, and of the creditable part which our profession has played in the general development of science."

99 Kümmerl, "Dem Arzt nötig oder nützlich?" (2001): 87.

100 Huisman and Warner, "Medical Histories" (2006): 13–14.

101 Ortrun Riha, "Die Puschmann-Stiftung und die Diskussion zur Errichtung eines Ordinariats für Geschichte der Medizin an der Universität Leipzig", in: Frewer and Roelcke (eds.), *Die Institutionalisierung der Medizinhistoriographie* (2001): 127–141.

102 Huisman and Warner, "Medical Histories" (2006): 12–13.

103 Max Seiffert, "Aufgabe und Stellung der Geschichte im medizinischen Unterricht", *Muenchener Medizinische Wochenschrift* (28.6.1904): 1159–1161.

104 Huisman and Warner, "Medical Histories" (2006): 14–15.

Osler thus repeated a number of typical arguments in favour of the pragmatic, cultural historical approach.<sup>105</sup> Roswell Park adopted a similar focus on causal explanations in his lectures at the University of Buffalo in 1899. He aimed to clarify “the causes which conspired to prevent the more rapid development of our art”, the ominous attitude of the Church figuring most prominently among them.<sup>106</sup>

## 6 How to Teach the History of Medicine?

In light of the aforementioned duality between research and teaching, it is no surprise that Sudhoff also asked whether medical history should be practiced and taught by physicians, as was the custom, or by professionally trained historians. His belief in the importance of in-depth research seemed to favour the latter option, but he still opted for a middle path as far as education was concerned. A teacher should have a thorough historical training, but, on the other hand, Sudhoff also stressed that “only a physician in the full sense of the word can finally fully evaluate and grasp the very fine and great things that a Hippocrates represents.”<sup>107</sup> Another option, advocated for instance by Proksch and tried out in Berlin in 1903, was to entrust the teaching of the general history of medicine to a historian and the history of specialties to the medical teachers in those specialties.<sup>108</sup> But this was clearly an exception. The vast majority of professors in the history of medicine around 1900 had a background in pathology or physiology.

Another frequently discussed issue was how to teach the history of medicine. In his inaugural lecture from 1912, the Parisian professor Maurice Lutelle neatly listed various alternatives. Firstly, there was the erudite approach à la Daremberg, based on an in-depth knowledge of texts. However, as the English epidemiologist Major Greenwood would later point out, one could absolutely not expect medical students to be able to read Hippocratic texts in their original form.<sup>109</sup> The second option, according to Lutelle, was the biographical

105 William Osler, *The Evolution of Modern Medicine. A Series of Lectures Delivered at Yale University on the Silliman Foundation in April, 1912* (New Haven: Yale University Press 1921): xiv. See Elizabeth Fee and Theodore M. Brown, “Using Medical History to Shape a Profession: The Ideals of William Osler and Henry E. Sigerist”, in: Huisman and Warner (eds.), *Locating Medical History* (2006): 139–164.

106 Roswell Park, *An Epitome of the History of Medicine* (Philadelphia / New York / Chicago: The F.A. Davis Company 1899): vii.

107 Karl Sudhoff, “Vorwort”, in: Julius Pagel, *Einführung in die Geschichte de Medizin in 25 akademischen Vorlesungen* (Berlin: Verlag von S. Karger 1915): vii.

108 “L’histoire de la médecine aux universités”, in: *Janus* 8 (1903): 336.

109 Major Greenwood, “The Teaching of Medical History”, *The British Medical Journal* 2 (1919), no. 3058: 187.

method in which famous predecessors were placed in the context of their time and presented as a source of inspiration. The biggest disadvantage of this approach was that it offered a fragmented picture of medical history. Thirdly, he proposed the critical method, which approached so-called mistakes of the past critically, corrected them if necessary, but also assessed their merits to the progress of science. This approach also risked being somewhat arbitrary and required very extensive historical literacy. Following the example of his German colleagues, Lutelle ended up regarding the philosophical method as the best option. Yet in putting this ideal to practice, he still fell back on the typical Parisian utilitarian historical-pathological approach. His lectures focussed on respiratory tract diseases, studied from the point of view of their history with the objective “to better understand medicine and to practice it better”.<sup>110</sup>

Others, such as the Russian physiologist Lev Morokhovets, were much more consequent in their implementation of the German cultural-historical tradition. Morokhovets based his textbook on the classic examples of Heinrich Haeaser, Baas, Daremberg, Pagel and Puschmann, although he criticised them for being too much like reference books with their endless sequence of biographies of significant physicians. Instead, Morokhovets aimed to write a guide that helped the reader to understand the gradual development of medical knowledge and ideas. That is why he structured his book according to the physiological way, by which man familiarised himself with his own nature, starting from the easily accessible morphology, and then followed by histology and physiology. He then discussed the development of different treatment methods and, rather originally, concluded with long chapters on the changing training and social position of the physician, and on the impact of these changes on ideas about illness and health.<sup>111</sup>

In this way, Morokhovets explicitly deviated from the standard chronological division in most textbooks. The latter would distinguish either two periods, with William Harvey’s discovery of blood circulation as the decisive turning point, or, more commonly, three periods, with Hippocrates and Harvey signalling the paradigm shifts. Hippocrates and Harvey earned this place because they were credited for introducing observation and experimentation into medicine (see Figure 1.4). Baas established this general trend in his influential textbook, first published in German in 1876. He divided between “the medical culture of those nations whose development in medicine is either already

110 Maurice Letulle, “Faculté de médecine de Paris. Cours d’histoire de la médecine et de la chirurgie. Leçon d’ouverture du 9 janvier 1912”, *La Presse médicale* (10.1.1912): 30.

111 Lev Morokhovets, *История и соотношение медицинских знаний* [History and correlation of the medical sciences] (Moscow: University Press 1903).



FIGURE 1.4 Fig. 75. Title-page of Harvey's *Treatise on Circulation of the Blood* (1628). Like many of his colleagues, William Osler also regarded his namesake William Harvey as one of the founders of scientific medicine. Through the history of medicine, Osler wanted to provide a humanistic counterbalance to the overly exclusive scientific approach, but at the same time also contribute to progress in medicine.

SOURCE: OSLER, *THE EVOLUTION OF MODERN MEDICINE* (1921): 168. INTERNET ARCHIVE, EVOLUTIONOFMODER00OSLE, [HTTPS://ARCHIVE.ORG/DETAILS/EVOLUTIONOFMODER00OSLE/PAGE/N7/MODE/2UP](https://archive.org/details/evolutionofmoder00osle/page/n7/mode/2up) (ACCESSED ON 8.2.2024)

closed or is stationary”, and “the medical culture of those nations whose development in medicine has been or is progressive”, focussing evidently on Greek and modern medicine respectively.<sup>112</sup>

Paracelsus and Van Helmont were also often cited as great innovators, but the anatomical and physiological discoveries of the late sixteenth and early seventeenth centuries were usually considered the major breakthroughs.<sup>113</sup> Daremberg even distinguished a period in which physiology was not known, and one in which it was known, again using Harvey’s discovery as the caesura. Michael Foster simply limited his San Francisco lectures to the history of physiology, beginning with the Renaissance anatomist Vesalius.<sup>114</sup> This emphasis on the importance of physiology can be partly explained by the predominant speciality of the proponents of history of medicine. It is thus no surprise that the pharmacologist Van Leersum, in his turn, labelled Paracelsus and the purveyor of iatrochemistry, Thomas Willis, as great reformers.<sup>115</sup>

## 7 Conclusion: Achieving the Objectives through a Varied Substantive Focus

The ambition of the early medical historians to contribute to the scientific progress of medicine explains why they chose to focus on scientists who had contributed to the scientification of medicine. They did not ignore the Middle Ages, but many of them, Pagel for instance, was only able to mention very few “positive achievements and progress in individual areas” during the scholastic period.<sup>116</sup> Between the fall of the Roman Empire and the Renaissance, the merits of specific individuals were rarely pointed out. Galen and Hippocrates were followed by Paracelsus, Vesalius and Harvey. The choice of scientists who had contributed to the rise of modern medicine during the eighteenth and nineteenth centuries was also clear to the authors of the textbooks. Herman Boerhaave was discussed as the founder of clinical teaching, Xavier Bichat as the father of modern histology and François-Joseph-Victor Broussais for his theory of medical physiology. Rudolf Virchow’s cellular pathology and Robert Koch’s bacteriological breakthrough illustrated more recent highlights.

112 Baas, *Outlines of the History of Medicine and the Medical Profession* (1889): 9–10.

113 E.g. Fossel, “Die Geschichte der Medicin und ihr Studium” (1898): 1029.

114 Michael Foster, *Lectures on the History of Physiology During the Sixteenth, Seventeenth and Eighteenth centuries* (Cambridge: University Press 1901).

115 Evert Cornelis van Leersum, *De arts en de geschiedenis zijner wetenschap* (Leiden: Boekhandel en Drukkerij, voorheen Brill 1904).

116 Pagel, *Einführung in die Geschichte de Medizin* (1915): 179–195.

In addition to this focus on the paradigm shifts caused by Hippocrates and Harvey in particular, it is striking how much attention almost all these textbooks paid to what the authors called primitive and non-Western medicine, of ancient Egyptians, Jews, Phoenicians, Babylonians, Scythians, Persians, Hindus, Indians, Chinese, Japanese, and Celts.<sup>117</sup> Payne motivated his emphasis on old Anglo-Saxon medicine by referring to the lack of historiography on this subject. Comrie was convinced that, in order to understand the development of medicine in its entirety, it was necessary to go back to the very beginnings of the healing art, which explains his interest in early civilizations. Even though other explicit explanations for this focus on pre-Hippocratic medicine were mostly lacking, this specific interest is almost obvious when one recalls the main motivations for the revival of the history of medicine around 1900. In this way, the specific chronological and content-related focal points of the textbooks allow us to draw a number of conclusions.

Given that the *fin de siècle* medical historians believed that medicine had developed organically, it made sense for them to go back to its roots. As Edward Berdoe stated in the introduction of his *Popular History of Medicine in All Ages and Countries*, the long-term study of the history of medicine would “enable us to avoid a common error of regarding facts, propositions, and remedies presented under new names, as really new, when they had been well known and used long before, but in connection with other names or theories”.<sup>118</sup> Tapping into the huge pool of extremely varied experiences and observations, students would become more open to other insights and opinions. Embracing scientific doubt, they would become more modest and more suspicious of dogmatism of all kinds. The hard labour of ancient physicians, who faced all kinds of uncertainties, could function as a moral source of inspiration.

The attention for primitive and non-Western medicine allowed professors in medical history to simultaneously pursue two somewhat contradictory ambitions. Firstly, they could pin down the crucial distinction between, on the one hand, pre-modern approaches characterised by superstition and faith-healing, and, on the other hand, modern observational and experimental medicine that had resulted in unprecedented medical progress. Secondly, going back to the earliest roots of medicine enabled them to point out the risks and one-sidedness of modern medicine, characterised by an exclusive focus

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117 E.g. Robley Dunglison, *History of Medicine from the Earliest Ages to the Commencement of the Nineteenth Century* (Philadelphia: Lindsay and Blakiston 1872) and Edward Berdoe, *The Origin and Growth of the Healing Art. A Popular History of Medicine in all Ages and Countries* (London: Swan Sonnenschein & co. 1893).

118 Berdoe, *The Origin and Growth of the Healing Art* (1893): VII.

on diseases instead of on the individual patient in a holistic manner, and by an exclusive natural science vision instead of a balanced combination of natural and human sciences.

Through a combination of all these aims, proponents of the history of medicine believed that their discipline at the same time could help students in dealing with uncertainty, yet also become an instrument in the unstoppable road to medical progress and thus gradually eliminate this uncertainty. Unfortunately, we will never know whether they achieved these goals with their students, due to a lack of source material. In any case, it is certain that neither they nor their successors, despite all further breakthroughs in medicine, have ever succeeded or will ever succeed in eliminating all uncertainty. However, this in no way undermined the potential benefits of education in the history of medicine in becoming aware of and learning to deal with medical uncertainty.

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# History of Medicine and Medical Ethics in the Prague Medical Schools, from 1880 to 1989

*Petr Svobodný*

## 1 Introduction

In the nineteenth and first half of the twentieth century, the University of Prague (subsequently, universities) and its (their) medical faculties were significantly influenced by German models and traditions in many ways.<sup>1</sup> Until at least the mid-twentieth century, these influences also had an impact on introductory courses to medical education.<sup>2</sup> The history of medicine and medical ethics have been part of medical curricula from the beginning of the nineteenth century until today, either within these introductory courses or separately. This was the case both at the linguistically German university prior to the split that occurred at the University of Prague in 1882, and later at both the Czech and German medical faculties in Prague. In 1882, following the law passed by the Imperial Parliament in Vienna, the Charles-Ferdinand University was divided into two fully separate institutions; the German Charles-Ferdinand University and the Czech Charles-Ferdinand University. The Faculty of Medicine of the Czech university was activated one year later.<sup>3</sup>

In Prague, the institutionalisation of the history of medicine and medical hodegetics followed the same pattern and happened at the same time as in other medical faculties in German-speaking Central Europe. It evolved from special lectures in the late eighteenth century, through professorships in the nineteenth century, and all the way up to the first specialised institutes at the beginning of the twentieth century. During the interwar era and the rule of

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- 1 Jan Havránek, "The University, Its Organisation, Administration, Students", in: Jan Havránek and Zdeněk Pousta (eds.), *A History of Charles University, Vol. II, 1802–1990* (Prague: The Karolinum Press 2001): 71–88; Ludmila Hlaváčková, "The Medical Faculty 1848–1883", in: Havránek and Pousta (eds.), *A History of Charles University* (2001): 101–108.
  - 2 Miro Jakovljevic, Izet Masic, Ljerka Ostojic, Milenko Bevanda and Edin Begic, "Medical Hodegetics – Almost Forgotten Art and Science of Upbringing Medical Doctors", *Psychiatria Danubina* (2019), no. 31 (Suppl. 1): 2–8.
  - 3 Havránek and Pousta (eds.), *A History of Charles University* (2001): 123–131, 141–143.

the two totalitarian regimes, Nazism and Communism, the political and ideological pressures that influenced scientific discourse also affected areas on the borderline between medicine and the humanities, such as the history of medicine and medical ethics.

The literature concerning the development of the history of medicine as an area of research and a subject taught at medical faculties in Prague has a tradition as long as the discipline itself. Published studies tended mainly to present overviews of previous authors and their works, and eventually to investigate the development of the institutional basis of this area of enquiry (institutes, societies, journals).<sup>4</sup>

The main research task of this chapter is to identify and follow the fundamental argumentation strategies of the leading representatives of the history of medicine from the end of the nineteenth century until the end of the twentieth, by analysing their original and often authoritative texts. I will answer the following questions: 1. What argumentation was used to legitimise the introduction of lectures on the history of medicine, or the founding of institutes dedicated to this area of research? 2. How was this argumentation influenced by political and ideological pressures? 3. Can one detect, in the sources, the students' response to the lectures or any practical impact of the lectures on future physicians and to the benefit of their profession?

The sources on which the following analysis is based are varied and rather numerous, but not necessarily comprehensive. I drew mainly on primary archival sources, especially official documents kept in the personal files of the main actors. These include applications for *Habilitation* or professorships, expert reviews of publications or the teaching activities of applicants, proposals for the introduction of lectures or the creation of an institute, proposals for reforms of the studies or curriculum, and model inaugural lectures. I have also employed published sources, again of a varied character. The leading representatives formulated their ideas concerning the history of medicine as a discipline for a broader sector of the population, especially students, mainly in textbooks, in texts on subjects such as an overview of the development and current situation, or as an introduction to the study of the history of medicine. Alternatively, such texts took the form of journalistic articles intended mainly for colleagues, which were mainly either programmatic or polemical. Some general thoughts on the purpose of the discipline can also be found in introductions to works on particular subjects or in overviews of the history

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4 Karel Černý, "History of Medicine in the Czech Republic: Past and Present", *History of Medicine* 3 (2016), no. 2: 185–198.

of medicine. Isolated references to the theory or practice of the scientific and pedagogical operation of the history of medicine as a discipline can be found in published memoirs of protagonists in this research field. Some useful insights on the subject also come from my own working life (discussions with colleagues, and my own experience with teaching). All of the above applies also to sources on the history of medical ethics, which, however, is dealt with only marginally in the following.

I drew on secondary literature of mainly Czech origin when outlining the more general context (bibliography of the protagonists, institutional development). Secondary literature of German provenance was used mainly as basic material for comparisons and as a source of methodological and terminological inspiration.

## 2 History of Medicine in the German Tradition from the Nineteenth to the Mid-Twentieth Century

The beginnings of the history of medicine as a specific discipline at the Prague medical faculty can be traced back to the late eighteenth century. In the second half of the nineteenth century, several professors from a number of fields gave elective lectures on the history of medicine at the Faculty of Medicine of the University of Prague. An important turning point in the institutionalisation of the field came in 1896 with the *Habilitation* of Ondřej Schrutz in the history of medicine at the Faculty of Medicine of the Czech Charles-Ferdinand University and his subsequent appointment as extraordinary professor in 1899. Not surprisingly, it was Schrutz who, after the First World War, founded one of the first institutes of the history of medicine outside Germany.<sup>5</sup>

In Berlin and Vienna, professorships in the history of medicine were established as early as the first half of the nineteenth century and these precedents influenced developments also in Prague.<sup>6</sup> Of crucial importance for the institutionalisation of this field was the establishment of the first institute for the history of medicine, which was founded by Karl Sudhoff in Leipzig (1906).<sup>7</sup> The

5 Černý, "History of Medicine in the Czech Republic" (2016): 186–187.

6 Werner Friedrich Kümmel, "Dem Arzt nötig oder nützlich? Legitimierungsstrategien der Medizingeschichte im 19. Jahrhundert", in: Andreas Frewer and Volker Roelcke (eds.), *Die Institutionalisierung der Medizinhistoriographie. Entwicklungslinien vom 19. bis 20. Jahrhundert* (Stuttgart: Franz Steiner Verlag 2001): 75–89.

7 Andreas Frewer, "Biographie und Begründung der akademischen Medizingeschichte: Karl Sudhoff und die Kernphase der Institutionalisierung 1896–1906", in: Frewer and Roelcke (eds.), *Die Institutionalisierung der Medizinhistoriographie* (2001): 103–126.

second such institute was established in 1914 in Vienna. During the interwar era, these were followed by another seven institutes (or seminars) in Germany.<sup>8</sup>

The arguments used by the various representatives of the history of medicine in German-speaking parts of Central Europe to legitimise their field of research changed frequently. Based on an analysis of programmatic introductions to publications or inaugural lectures, the German medical historian Werner Friedrich Kümmel distinguishes three phases of legitimisation strategies. Until the second half of the nineteenth century, legitimisation tended to be based on a late-Enlightenment and idealistic conception of the history of medicine characterised by a biographical and philological focus. The main purpose of turning to the works of earlier figures was not only to follow up on and develop their legacy, but also to learn to tolerate other views, exercise caution in one's own judgement, and avoid the mistakes of previous generations. The study of the history of medicine was considered part of the general cultivation of the physician's personality. According to some philosophising authors of a Hegelian leaning, the 'world spirit' found its most excellent expression in the healing arts. In general, one can thus say that the arguments of authors of this era were mostly of a general and principle-based nature.<sup>9</sup>

A significant shift occurred in the 1870s that led to new strategies in the legitimising efforts of medical historians. Alongside the general arguments used during the previous phase (taking lessons from the 'imposing' successes of the past and avoiding repeating the same mistakes), one can also see growing efforts to find in past examples solutions to concrete problems, for instance concerning particular therapies and the position of the medical profession.<sup>10</sup>

Around 1900, medical historians found themselves on the back foot vis-à-vis scientifically oriented modern medicine and were forced to strengthen their arguments by invoking the practical applicability of their field.<sup>11</sup> Alongside the oft-repeated idea that there is no better teacher than the history of the scientific discipline itself, one can note some clearly novel arguments. One of them was a warning against professional one-sidedness, which general education can help prevent; another was an emphasis on historical lessons learned from fighting charlatans and fraudsters. One of the most influential medical

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8 Bernhard von Brocke, "Die Institutionalisierung der Medizinhistoriographie im Kontext der Univesritäts- und Wissenschaftsgeschichte", in: Frewer and Roelcke (eds.), *Die Institutionalisierung der Medizinhisotiographie* (2001): 187–212.

9 Kümmel, "Dem Arzt nötig oder nützlich?" (2001): 77–81.

10 Kümmel, "Dem Arzt nötig oder nützlich?" (2001): 81–82.

11 For more details, see chapter 1 of this volume.

historians of this era was Julius Pagel, who in addition to listing the current and practical tasks of the history of medicine, described its essence as ‘ethics embodied’, which should guide physicians through their profession. The other great figure of that time, Karl Sudhoff, distinguished between the historiography of medicine as ‘pure science’ (similar to historiography in general) and its more utilitarian uses in teaching.<sup>12</sup>

In the following, I shall ask whether the history of medicine and other related disciplines taught at medical faculties in Prague were able to help physicians deal with the challenges of medical uncertainty. In doing so, we will focus on the latter kind of argumentation, that is, the topical, practical tasks of the history of medicine.

Both universities in Prague coexisted side by side even after 1918 when Czechoslovakia became a new independent nation state.<sup>13</sup> The Medical Faculty of the Charles University (which was the new official name of the Czech university in Prague) was the more successful as far as institutionalisation of the history of medicine goes.

Ondřej Schrutz, extraordinary professor from 1899, lectured on the history of medicine from the late nineteenth century and published numerous important studies and editions, especially of medical texts from classical antiquity (Hippocrates, etc.). In 1920, he was appointed ordinary professor of history of medicine at the Faculty of Medicine of Charles University.<sup>14</sup> In 1899, he published his *Přehled historiografie lékařství v Čechách* [An Overview of the Historiography of Medicine in Bohemia], in which he dated the origins of modern scientific interest in the history of medicine at the Faculty of Medicine in Prague to the culmination of the Enlightenment reforms of university education and healthcare in the Habsburg Monarchy, i.e. around the 1780s.<sup>15</sup>

In his application for *Habilitation* (the degree required for the title of *Dozent*) in 1896, Schrutz summed up the content of his lectures as “an overview of the history of medicine in general [...] as well as the specialised history of particular subjects”. In his inaugural lecture as a *Dozent*, he defined medicine as a “comprehensive science of human life”. However, what he felt was missing at

12 Kümmerl, “Dem Arzt nötig oder nützlich?” (2001): 83–87.

13 Petr Svobodný, “Universities in Central Europe: Changing Perspectives in the Troubled Twentieth Century”, in: Ana Simões, Maria Paula Diogo and Kostas Gavroglu (eds.), *Sciences in the Universities of Europe, Nineteenth and Twentieth Centuries. Academic Landscapes* (Heidelberg: Springer 2015): 107–123.

14 Ludmila Hlaváčková and Petr Svobodný (eds.), *Biografický slovník pražské lékařské fakulty 1348–1939, II, L–Ž* (Prague: Univerzita Karlova 1993): 275–276.

15 Ondřej Schrutz, *Přehled historiografie lékařství v Čechách* (Prague: 1899).

the time from medical and biological sciences was a “satisfactory unified view of life [...] due to advanced fragmentation into detailed, specialised studies”.<sup>16</sup>

An institute dedicated to the history of medicine, which Schrutz founded, began to function in 1924. It was the fourth institute of its kind in Central Europe,<sup>17</sup> and it was modelled in part on older institutes in Leipzig, Vienna and Würzburg. Lectures on the history of medicine were, however, still only an elective part of medical studies.<sup>18</sup>

The significance of Ondřej Schrutz regarding scientific research in Bohemian (and internationally) medicine is especially due to his setting the standards for this area of research.<sup>19</sup> In the spirit of historical positivism, which was also the predominant approach within the Czech historical school of the late nineteenth and early twentieth century (the so-called historical school of Professor Josef Goll),<sup>20</sup> he emphasised the importance of the thorough study of original sources in line with the *‘wie es eigentlich gewesen ist’*-principle advocated by the German historian Leopold von Ranke. The Czech historiography of medicine, represented by Ondřej Schrutz and later by Josef Vinař, was naturally also strongly influenced by the prevailing discourse of contemporary European trends in the historiography of medicine, which tended to come up with explanations where “the great doctors and the great ideas were often portrayed as a march of the intellect”.<sup>21</sup> Schrutz was at the vanguard of institutionalisation in the form of separate institutes within medical faculties, in accordance with the German model. These institutes, including the one in Prague, have been offering lectures on the history of medicine – sometimes mandatory, sometimes optional, at some points separate, at other times as part of a diversely conceived introduction to courses – from the beginning of the twentieth century to the present day.

After Schrutz's death, Josef Vinař became a *Dozent* of the history of medicine and, in 1936, he became Schrutz's successor as head of the institute. In 1939, Vinař published his *Úvod do studia lékařství: Lékařská hodegetika* [Introduction

16 Prague, Archives of Charles University, Faculty of Medicine of Charles University 1883–1953: *Personal file of Ondřej Schrutz, N. 156, habilitation* (1895).

17 Brocke, “Die Institutionalisierung” (2001): 191.

18 Černý, “History of Medicine in the Czech Republic” (2016): 187.

19 Ladislav Niklíček, “Vývoj a současné problémy české historiografie lékařství a zdravotnictví”, *Dějiny věd a techniky* 25 (1992), no. 1: 6.

20 Josef Petráň, “The Philosophical Faculty”, in: Havránek and Poustka (eds.), *A History of Charles University* (2001): 147–171.

21 Gert Brieger, “The Historiography of Medicine”, in: William F. Bynum and Roy Porter (eds.), *Companion Encyclopaedia of the History of Medicine, Vol. I* (London/New York: Routledge 2001): 24.

to the Study of Medicine: Medical Hodegetics]. The purpose of the introductory lectures to the study of medicine, their necessity or indispensability, as well as their place on the uncertain border between medicine and its social roles, are characterised by the author in the introduction as follows: “Introductory lectures should give the students an overview of the particular areas of the study of medicine [...], provide an outline of how medicine is connected with other sciences, especially with philosophy, while also offering guidelines for the practical life of a physician, especially by stressing the importance of professional ethics.”<sup>22</sup>

We find more detailed arguments in favour of teaching the history of medicine in materials from Vinař’s professorial application submitted in 1939. An expert assessment of his application for the professorship highlights his ability to educate students not only in terms of scientific work (in medicine in general), but also to turn their attention within their profession “to the highest goals”, his ability to demonstrate to his students that the medical profession is “important within the entire body of society [...] and a physician is more than anyone else called upon to be a teacher and educator of the nation”. Vinař also appealed to young physicians to respect their profession and “maintain a clean and unblemished reputation”. As a supplement to “merely scientific tools”, he encouraged them to act in a gentle, tactful and conscientious manner. In this assessment, we also find important testimony to the consistently high attendance at and good reputation of his lectures. His publication *Úvod do studia lékařství* [Introduction to the Study of Medicine] is in this document characterised as “showing the direction and offering guidance [...] on the road to the medical profession”. In the conclusion of this document, we find an argument which stresses the need to appoint an ordinary professor of the history of medicine, as had been done at large foreign universities (in particular Berlin and Leipzig, but also Kraków), to provide for the training of a competent successor. The evaluation appraises, in detail and with great erudition, his scientific and publication activities, emphasising among other things the high standard of his general historical orientation in the spirit of positivist historiography, at that time represented especially by Goll’s student, Professor Josef Pekař. The author of the assessment notes that the most valuable part of Vinař’s work are his studies on Czech medicine in the Baroque period.<sup>23</sup> The bulk of his

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22 Josef Vinař, *Úvod do studia lékařství: lékařská hodegetika* (Prague: J.R. Vilímek 1939).

23 Prague, Archives of Charles University, Faculty of Medicine of Charles University 1883–1953; *Personal file of Josef Vinař, N. 1429, professorial process* (1939).

teaching, scientific, and publication career would only come after the end of the Second World War.<sup>24</sup>

During the interwar period, medical ethics was not systematically taught at Charles University. Many teachers, students, graduates and practicing physicians were aware of this shortcoming, which was also discussed in the medical press during the 1930s. The articles repeatedly mentioned the argument that physicians, besides scientific and practical competence, must also exhibit certain moral qualities, with special attention paid to medical confidentiality.<sup>25</sup> Discussions led to a promising result in the form of a proposal, adopted in 1937 at a meeting of medical chambers, to establish lectureships in deontology at all medical faculties in Czechoslovakia. Their main task was to teach future physicians how to deal with their relationship with patients, colleagues, the authorities, health insurance companies, and professional organisations. Implementation of this plan was unfortunately prevented by the breakup and subsequent demise of independent Czechoslovakia in 1938–1939.<sup>26</sup> Some participants in these discussions returned to the issue after 1945.

At newly founded Czechoslovak universities, the only medical faculty that offered teaching in the humanities was that of Bratislava, where, in 1927, Antonín Spilka was in 1927 appointed professor of the history of medicine, philosophy and hodegetics, and head of a newly established institute dedicated to these subjects.<sup>27</sup> The application for *Habilitation* in the history of medicine at the Faculty of Medicine of Masaryk University in Brno submitted in 1934 by Gustav Gellner, an outstanding researcher in the history of medicine, was “to the detriment of the Czech history of medicine” turned down by the faculty.<sup>28</sup>

All the medical historians mentioned thus far had graduated from a medical school and begun their academic careers as teachers and researchers in some medical field. They had no special formal training in history, neither theoretical nor methodological. In most cases, their choice was motivated by an interest in the history of their own medical specialities, or an awareness of ethical questions relevant to their profession. In some cases, they opted for a new field

24 Hlaváčková and Svobodný (eds.), *Biografický slovník*, II (1993): 352.

25 Václav Cedrych, “Úvahy z lékařské deontologie. Příspěvek k řešení problému etiky lékařské dneška”, *Věstník československých lékařů* 46 (1934), no. 38: 1009–1012.

26 Helena Haškovcová, *Lékařská etika* (Prague: Galén 2015): 30–35.

27 Hlaváčková and Svobodný (eds.), *Biografický slovník*, II (1993): 290–291.

28 Miloslav Matoušek, *O vývoji a současném stavu historie lékařství v Československu* (Prague: Státní pedagogické nakladatelství 1957): 16.

because of the greater ease of career advancement it offered (Schrutz<sup>29</sup>) or due to health reasons (Spilka). The arguments presented by the founders of the institutional base of the history of medicine at Charles University concerning the function of this discipline were, as far as we were able to ascertain based on the sources, only very general. According to Schrutz, his lectures were intended to provide future physicians above all with a general perspective to supplement the knowledge and skills acquired in the study of particular medical subjects. In addition, Vinař also emphasised the need to demonstrate to students the importance of their future profession, their place in society, and the high ethical standards required of individuals and the medical profession as such. If their lectures and publications expressed any higher ideas or principles, during the interwar period they were most likely linked to the ethos of building a new, national, democratic state.

At the German University in Prague, the institutionalisation of the history of medicine was delayed until 1940 and took place under very different political and ideological conditions. After the Nazi occupation of Bohemia and Moravia, the university was integrated into the Reich's system of universities in 1939, while the Czech Charles University was closed down in the same year by the Nazi authorities, only to reopen again in 1945. The Faculty of Medicine of the German University adopted all Reich study norms, which mandated, among other things, lectures on the history of medicine.<sup>30</sup>

In 1940, these were entrusted, after a short training at the Institute for the History of Medicine in Berlin, to Maximilian Watzka, a professor of histology. According to his own testimony, his regular lectures on the history of medicine (focussed mostly on Prague traditions) were well attended by students.<sup>31</sup> Watzka was, among other things, the author of a brief history of the University of Prague and its medical school, a text written in a clearly anti-Czech and

29 Ludmila Hlaváčková, "Nalezeno vysvětlení, proč se z anatoma O. Schrutze stal historik lékařství?", *Sborník lékařský* 96 (1995), no. 2: 137–140.

30 Petr Svobodný, "Prague Faculties of Medicine and Their Clinics in 1939–1945", in: Sabine Schleiermacher and Udo Schagen (eds.), *Wissenschaft macht Politik. Hochschule in den politischen Systembrüchen 1933 und 1945* (Stuttgart: Franz Steiner Verlag 2009): 219–228.

31 Ludmila Hlaváčková and Petr Svobodný, *Biographisches Lexikon der deutschen medizinischen Fakultät in Prag 1883–1945* (Prague: Nakladatelství Karolinum 1998): 221; Max Watzka, "Von Prag nach Mainz: Ein erfülltes Leben für Wissenschaft und Lehre", in: Gunter Mann and Franz Dumont (eds.), *Medizin in Mainz. 40 Jahre Medizinische Fakultät und Klinikum 1946–1986* (Mainz: Verlag Kirchheim 1986): 175–186.

pro-Reich spirit.<sup>32</sup> Within the Faculty of Medicine, however, there were areas where Nazi ideology had a much greater impact, such as racial profiling.

The closing of Czech universities naturally also led to a cessation of lecturing activities at the Institute for the History of Medicine of Charles University, but it was also the time when Josef Vinař published one of his best-known texts, *Zachránci lidstva* [Saviours of Mankind] in 1942. The reception of this book was extraordinarily important at the time. The book with its emphasis on the role of Czech physicians in the development of European medicine helped boost the self-confidence of the Czech nation during the difficult time of the Nazi occupation.<sup>33</sup>

### 3 The History of Medicine in a Dogmatic Marxist Spirit (1940s–1950s)

After the end of the war, the Faculty of Medicine of Charles University, which had been closed during the war by the Nazis, was reopened,<sup>34</sup> and the Institute for the History of Medicine resumed its activities with its pre-war head, Josef Vinař, at the helm. In 1946, Vinař was appointed extraordinary professor of the history of medicine and medical hodegetics and, as a researcher, he continued to be active in developing these fields. In 1948, in the aftermath of the Communist takeover, he was removed from the post.<sup>35</sup> In 1945, Vinař published a new edition of his textbook *Úvod do studia lékařství* [Introduction to the Study of Medicine], and in the years that followed he worked on a large study of the history of medicine in the Czech lands. This was published in unfinished form in 1959 as *Obrazy z minulosti českého lékařství* [Images from the Past of Czech Medicine].<sup>36</sup> Vinař's Marxist contemporaries criticised his work as ideologically deficient, but historians today view the positivist methodology applied in his publications in a much more favourable light: "[...] his books reflect an advanced understanding of contemporary historical methodologies."<sup>37</sup>

32 Max Watzka, *Die Prager Universität und ihre Medizinische Fakultät* (Prague: J. F. Lehmanns Verlag 1941).

33 Niklíček, "Vývoj a současné problémy" (1992): 7.

34 Blanka Zilynská, "The Post-War Renewal of Charles University", in: Havránek and Pousta (eds.), *A History of Charles University* (2001): 265–271.

35 Hlaváčková and Svobodný (eds.), *Biografický slovník, II* (1993): 352.

36 Josef Vinař, *Obrazy z minulosti českého lékařství* (Prague: Státní zdravotnické nakladatelství 1959).

37 Černý, "History of Medicine in the Czech Republic" (2016): 187.

Shortly after the war, several programmatic texts appeared in the medical press which emphasised that humanities should be incorporated into medical education. Members of the younger generation with Marxist leanings also became enthusiastic to teach humanities at the Faculty of Medicine. As early as 1945, Václav Cedrych, a general practitioner, continued his pre-war efforts with an article entitled “Potřeba a program lékařské hodegetiky a deontologie [The Need for and Programme of Medical Hodegetics and Deontology]”,<sup>38</sup> which at the time attracted little attention but was rediscovered in the 1990s by reformers of medical studies.<sup>39</sup> He formulated his thoughts concerning the need for medical hodegetics and deontology for medical students and physicians immediately after the war, in the context of discussions on the reform of medical studies. Intended legitimisation of this area of knowledge was inspired by the author’s arguments regarding new challenges of medical deontology “which will have an impact on numerous other relationships and areas of knowledge, which, due to the rapid development of social security, various changes in social legislation, and many new tasks in medicine’s mission, become new areas of importance for physicians, and of extraordinary significance for medical practice.”<sup>40</sup>

In 1946, lectures on hodegetics were entrusted to Bohuslav Bouček, professor of pharmacology. Bouček was also appointed head of the newly established Department of Deontology at the Institute for the History of Medicine, on a temporary basis (1948–1952) as secretary to Miloslav Matoušek, the director of the institute.<sup>41</sup> At this time, in 1949, Bouček published a programmatic article “O úkolech české lékařské historiografie [On the Tasks of Czech Medical Historiography]”. The author’s study of deontology inspired his statement that “we seem to be lagging significantly behind in our knowledge of the historical development of Czech medicine”, as well as his subsequent list of problems of a historical nature which had been dealt with insufficiently, or not at all.<sup>42</sup> According to Bouček, one can find in the history of medicine both encouraging and cautionary examples. He believed that the richness and usefulness of the history of medicine as a discipline is driven by the dynamic, almost precipitous development of medicine in general. He was also convinced that certain

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38 Václav Cedrych, “Potřeba a program lékařské hodegetiky a deontologie”, *Věstník československých lékařů* 57 (1945), no. 29–30: 410–411.

39 Haškovcová, *Lékařská etika* (2015): 31.

40 Cedrych, “Potřeba a program” (1945): 410.

41 Josef Adamec and Ludmila Hlaváčková (eds.), *Biografický slovník pražské lékařské fakulty 1348–1939, I, A–K* (Prague: Univerzita Karlova 1988): 158–159.

42 Bohuslav Bouček, “O úkolech české lékařské historiografie”, *Praktický lékař* 29 (1949), no. 18: 353–357.

idiosyncratic features of the development of Czech medicine are due to specific political, cultural and economic circumstances.

During the reform of higher education, which came with the political and ideological changes in the aftermath of the Communist takeover in 1948,<sup>43</sup> the form and content of humanities and social sciences at medical faculties began to be shaped entirely by Marxist teachers. In 1947, Miloslav Matoušek, a pre-war leftist intellectual and participant in the anti-Nazi resistance, received his *Habilitation* in the history of medicine at the Faculty of Medicine of Charles University. He defined the Marxist spirit of the history of medicine until the mid-1970s. From 1948 to 1955, with intermissions necessitated by his work in the diplomatic services, Matoušek served as head of the Institute for the History of Medicine in Prague.<sup>44</sup> In 1955, he founded the Institute for the History of Medicine at the Faculty of Medicine of the Olomouc university, which he headed (later in conjunction with the Institute of Social Medicine) until 1976.<sup>45</sup>

Matoušek's work in the history of medicine (textbooks, articles and teaching syllabi) was ideologically and methodologically based on dogmatic Marxist-Leninist positions. Within this framework, he tried to link current Stalinist dogma in social sciences with the local version of Czech history in the spirit of Professor (and after 1948, Minister of Education) Zdeněk Nejedlý. This spirit was marked by an emphasis on so-called progressive traditions of the past, whose heirs were said to be the current Communists.<sup>46</sup>

Matoušek advocated making lectures on the history of medicine obligatory for medical students, starting from the first half of the 1950s. He formulated a proposal to include mandatory lectures on the history of medicine in the curriculum of the medical faculty of Charles University in Prague, which took place in the context of wholesale reforms in medical studies. The basic justification was traditional: the special relevance of teaching the history of medicine stemmed from the then current importance of learning about the development of medical science. Some more detailed arguments were based on Marxist theories. Matoušek compares "progress in medicine" with "conquering material goods", in other words with the primacy of the material sphere

43 Zdeněk Pousta, "Charles University 1947–1953", in: Havránek and Pousta (eds.), *A History of Charles University* (2001): 275–281.

44 Hlaváčková and Svobodný (eds.), *Biografický slovník, II* (1993): 166–167.

45 Miloslav Matoušek, "Pět let činnosti Ústavu dějin lékařství Palackého university v Olomouci", in: Jaromír Hrbek (ed.), *Lékařská fakulta Palackého university v Olomouci 1956–1960* (Olomouc: Palackého universita 1961): 9–12.

46 Ladislav Niklíček and Růžena Šimberská, "Vývoj a současné problémy české historiografie lékařství a zdravotnictví", *Dějiny věd a techniky* 25 (1992), no. 1: 1–16.

over the spiritual in the spirit of historical materialism. According to him, students should learn to view the historical development of medicine as “creative elements of revolutionary events”. The final output of the history of medicine as a research field should be a “socialist medical history” which “manages to overcome dead historicism [...], not science for science, but science for life”. Matoušek also proposed that the subject be taught in one of the final terms, that is, to near-graduate physicians.<sup>47</sup>

In connection with a proposal to create a new institute for the history of science at the medical faculty of Palacký University in Olomouc, Matoušek's expert comments addressed to various faculty and ministerial committees regarding the preparation of curricula for medical schools, took a different direction. They focussed not on the mission of the discipline, but on its organisational foundation and its staffing. In particular, he defined the existing or planned units as either research units ('cabinets') or as institutes oriented towards research and teaching. Matoušek also advocated the placement of courses in the history of medicine at the end of studies, as part of the ministerial curriculum followed in all medical faculties, and the requirement that institutes be headed by a professor, or at least an assistant professor (*Dozent*).<sup>48</sup>

A similar line of reasoning in the 1950 proposal, addressed to the committee for reform at the Prague medical faculty, also appears in Matoušek's published texts from the second half of the 1950s, texts intended for students. In fact, generations of physicians and historians were supposed to see his textbooks *O vývoji a současném stavu historie lékařství v Československu* [On the Development and Current State of the History of Medicine in Czechoslovakia],<sup>49</sup> *Morálka socialistického lékaře* [Ethics of a Socialist Physician],<sup>50</sup> and *Úvod do studia dějin lékařství* [Introduction to the Study of the History of Medicine]<sup>51</sup> as the ultimate authority on the subject.

Imbued with the self-confidence of political and ideological winners, Matoušek views the early years of the Communist system in Czechoslovakia (which coincided with the beginning of his academic career) as the most

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47 Prague, Archives of Charles University, Institute for the History of Medicine: *Proposal to include mandatory lectures on the history of medicine* (15.3.1950).

48 Prague, Archives of Charles University, Institute for the History of Medicine: *Proposal to establish an institute for the history of medicine at the Faculty of Medicine of Palacký University in Olomouc* (5.2.1954).

49 Matoušek, *O vývoji a současném stavu historie lékařství* (1957).

50 Miloslav Matoušek, *Morálka socialistického lékaře* (Prague: Státní pedagogické nakladatelství 1957).

51 Miloslav Matoušek, *Úvod do studia historie lékařství* (Prague: Státní pedagogické nakladatelství 1959).

important period in the development of Czech historiography of medicine overall. He stated that research into the history of medicine in the post-war years followed up on “the previous tradition of development [...] and all its progressive elements”. At the same time, he viewed it his “duty to fight against the historical marginalisation and underestimation by some large nations of the scientific successes in medicine by smaller nations” and added that “all these efforts [...] are supported by socialist patriotism.” The current state of the field in Czechoslovakia testified to “the influence of historical materialism in the history of medicine and its current importance and evaluation”. Under socialism, the field had seen an increase in the number of experts, as well as an increase in the diversity of teaching within this field.<sup>52</sup>

Matoušek also assessed the post-war development of teaching in this field very positively, noting a satisfactory growth of interest among students. The growth was closely linked to the introduction of mandatory lectures on the subject for first-year students at all Czechoslovak medical faculties in 1955–1956. Increasing interest in the field on the part of young physicians was another aspect he viewed as a success. However, he did not disguise various problems linked to this increased interest, mainly of a methodological nature (i.e. a lack of historical materialism). These teething problems inspired him to write methodical guidelines intended for students and young physicians.<sup>53</sup> In these texts, he notes that the lectures are important because “knowledge of the history of medicine supplements the education of a physician, the education acquired through lectures on other medical sciences, which due to its nature fortifies him.”<sup>54</sup>

Matoušek expressed his view even more clearly in his textbook of medical ethics entitled, characteristically for its era, *Morálka socialistického lékaře* [Ethics of a Socialist Physician]. As in the case of the history of medicine, in the academic year of 1955–1956, the Czechoslovak medical faculties introduced mandatory lectures on medical deontology, for which Matoušek had likewise prepared the basic teaching text. Its contents stress the morals of a new socialist person far more than medical ethics as such. In particular, he took as his starting point the writings of the ‘classics of Marxism-Leninism’ and contemporary Soviet authors, while key works on medical deontology figure neither in the bibliography, nor in the list of recommended literature.<sup>55</sup>

52 Matoušek, *O vývoji a současném stavu historie lékařství* (1957): 21–22.

53 Matoušek, *Úvod do studia historie lékařství* (1959): 3–4.

54 Matoušek, *Úvod do studia historie lékařství* (1959): 73.

55 Matoušek, *Morálka socialistického lékaře* (1957): 83–87.

In the institutionalisation of the history of medicine, medical hodegetics, and the teaching of these subjects, Miloslav Matoušek played – albeit under the changed political and ideological circumstances of the Communist regime in Czechoslovakia – a similarly foundational role to that played by Ondřej Schrutz during the era of positivist historiography and the Whig history of medicine<sup>56</sup> in the late nineteenth and early twentieth century. Matoušek represented continuity at the Prague institute, founded another, similar institute in Olomouc, and was instrumental in introducing mandatory courses in humanities at the medical faculties. His textbooks laid down in an authoritative manner new foundation for research directions, subjects and methodology, and defined the educational, strongly ideologized effect of lectures and publications in the humanities on the training of young physicians. The paradigm he created remained dominant among the most prominent representatives of the history of medicine, and even their successors in the 1960s and 1970s.

#### 4 A Non-Dogmatic Marxist Approach (1960–1989)

During the politically and ideologically more liberal 1960s, the Institute for the History of Medicine in Prague was headed by Ludmila Sinkulová, MD, also a pre-war leftist intellectual and anti-Nazi fighter. In the late 1960s, she openly supported the reform movement within the Communist Party and in society as a whole, which is also why she was removed from her post after the Soviet invasion in 1968. Her research focussed mainly on the social history of medicine, especially on the development of public healthcare in the eighteenth and nineteenth centuries.<sup>57</sup> Under her leadership, the institute worked on an ambitious new project on the history of Czechoslovak medicine which, partly due to political reasons, remained unfinished. What was published was the first volume, which mapped the history up to 1740,<sup>58</sup> and the second volume, which covered the period 1740–1848.<sup>59</sup> Sinkulová's theoretical foundations and her focus on social history are also clearly evident in the title of her main work,

56 Keir Waddington defines Whig history as follows: “a progressive narrative that assumed the present was superior to the past” (Keir Waddington, *An Introduction to the Social History of Medicine: Europe since 1500* (London: Palgrave Macmillan 2011): 2).

57 Karel Černý and Ludmila Hlaváčková (eds.), *Biografický slovník 1. lékařské fakulty UK 1945–2008, II, M – Ž* (Prague: Nakladatelství Karolinum 2020): 86–87.

58 Marie Vojtová (ed.), *Dějiny československého lékařství, I* (Prague: Státní pedagogické nakladatelství 1965).

59 Ludmila Sinkulová, *Dějiny československého lékařství, II* (Prague: Státní pedagogické nakladatelství 1965).

*Lékaři, stát a zdraví lidu. Z historie zdravotní služby v českých zemích* [Physicians, the State and the Health of the People. From the History of Healthcare in the Czech Lands].<sup>60</sup>

Ludmila Sinkulová's research into the social history of medicine in the 1950s and 1960s corresponded to contemporaneous trends in the international historiography of medicine.<sup>61</sup> Explicitly, though, she refers mainly to Soviet models, both in the introduction and in the bibliography.<sup>62</sup>

Lectures on the history of medicine and medical ethics were in the 1960s limited to brief references within the framework of the introduction to the study of medicine or courses on social medicine (on which more below). Sinkulová assessed the theory and practice of education in the history of medicine in her 1965 study, stating, among other things, that "first of all, we must admit that lectures in our field are at the Faculty of General Medicine attended by a very small percentage of students." Sinkulová believed that the low interest in the lectures was due above all to psychological reasons: by the students' otherwise praiseworthy orientation towards the future rather than the past and their deep interest in medicine rather than humanities. Nevertheless, students did show interest in the history of the medical profession and physicians' social position.<sup>63</sup>

In the 1970s and 1980s, the Institute for the History of Medicine in Prague was headed by another originally reformist Communist, the Marxist philosopher Josef Adamec, who was transferred here after 1968 as a form of punishment from the ideologically more closely supervised Institute of Marxism-Leninism. As a researcher, he did not have much impact on the history of medicine.<sup>64</sup> Other employees of the institute at this time focussed mainly on the history of the medical faculties in Prague in the eighteenth to twentieth centuries, as evidenced by the most ambitious project of the institute,<sup>65</sup> the *Biographical Lexicon of the Medical Faculty in Prague 1348–1939*.<sup>66</sup> Teaching was still limited to brief incursions into the history of medicine during introductory medical

60 Ludmila Sinkulová, *Lékaři, stát a zdraví lidu. Z historie zdravotní služby v českých zemích* (Prague: Státní zdravotnické nakladatelství 1959).

61 Brieger, "The Historiography of Medicine" (2001): 25.

62 Sinkulová, *Lékaři, stát a zdraví lidu* (1959): 7, 352–356.

63 Ludmila Sinkulová, *K výuce dějinám lékařství na Fakultě všeobecného lékařství Karlovy university v Praze* (Prague: Univerzita Karlova s.d. [1965]): 13–15.

64 Karel Černý and Ludmila Hlaváčková (eds.), *Biografický slovník 1. lékařské fakulty UK 1945–2008, I, A-L* (Prague: Nakladatelství Karolinum 2018): 26.

65 Černý, "History of Medicine in the Czech Republic" (2016): 190.

66 Adamec and Hlaváčková (eds.), *Biografický slovník, I* (1988); Hlaváčková and Svobodný (eds.), *Biografický slovník, II* (1993).

studies, usually in the form of a lecture during the summer camp organised for incoming freshmen.

During the period of so-called normalisation that followed the Soviet invasion of 1968, students were exposed to social sciences and humanities mainly in courses on social medicine and the organisation of healthcare, which were provided by various departments and institutions founded shortly after 1948, the names of which tended to change.

A more thorough indoctrination in the spirit of the ruling Communist ideology was provided throughout the period 1948–1989 by the departments and institutes of Marxism-Leninism, which were active at all universities, including at medical faculties. In the ill-fated 1950s and then again during the normalisation era in 1970–1989, these institutes and departments taught future physicians dialectical and historical materialism, scientific communism, and political economy. During the ideologically more liberal 1960s, which culminated in 1968 with the Prague Spring, they taught standard introductions to philosophy, sociology and political science, in line with their counterparts in the West.<sup>67</sup>

Ladislav Niklíček was one of the most important figures in the research and teaching of the history of medicine from the 1970s to early 1990s. He found himself in that position somewhat unwillingly. Niklíček was the first major representative of the field without medical training. He started his career at the Faculty of Philosophy of Charles University as a contemporary historian specialised in the history of the workers' movement but had to leave his post after 1968 as a punishment for participating in the reformist efforts. Nevertheless, he was permitted to work first at the Department of Social Medicine of the Faculty of General Medicine, and later at the Institute for Further Education of Physicians and Pharmacists, where over time he became a leading expert on the social history of medicine and healthcare in twentieth-century Czechoslovakia.<sup>68</sup>

During the early years of his work in the history of medicine, in the 1970s, Niklíček published mainly as a co-author with his colleagues in social medicine or healthcare organisation. He also participated in the writing of predominantly ideological or occasional articles and speeches by the Minister of Health. His academic articles from this time tended to focus on personalities

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67 Josef Petráň, "Charles University 1969–1989", in: Havránek and Pousta (eds.), *A History of Charles University* (2001): 299–301.

68 Antonín Kostlán, "Člověk a historik Ladislav Niklíček", in: Karel Černý and Petr Svobodný (eds.), *Historia – medicina – cultura. Sborník k dějinám medicíny* (Prague: Nakladatelství Karolinum 2006): 9–16.

from Soviet science or Czech Communist physicians active in the anti-Nazi resistance. At this time, however, he also conducted serious research into the organisation of healthcare and social medicine in interwar Czechoslovakia, their links to healthcare reform proposals of that time, and their later impact on socialist healthcare after 1948.<sup>69</sup>

Alongside his own publications, he co-authored the textbooks *Úvod do studia lékařství* [Introduction to the Study of Medicine],<sup>70</sup> for which he wrote chapters on the history of medicine and healthcare, and *Úvod do studia dějin zdravotnictví a sociálního lékařství* [Introduction to the Study of the History of Healthcare and Social Medicine].<sup>71</sup> Both of these textbooks were closely linked to courses he taught at the Medical Faculty of Hygiene and in his postgraduate courses.

In the 1980s, Niklíček continued his research on the abovementioned subjects and also published several programmatic texts on the methodology and teaching of the history of medicine. In these texts, which were for tactical reasons still full of ideological clichés, as was then customary, he referred both to Soviet models and to the future course of healthcare, as declared in political speeches (especially speeches by the Minister of Health). According to the Marxist historians whose ideas he endorsed, the aim of the historiography of medicine was to investigate and explain the links between population health, production relationships, social circumstances, and natural and epidemiological circumstances, on the one hand, and the state of medical science, healthcare services and healthcare policies, on the other. The history of medicine was thus to be studied as an integral part of social and cultural development, not only as a pure history of science. One also finds in Niklíček's texts a justification for the history of medicine as a research field and a teaching subject that is based on its relationship to the medical sciences and education: "The history of medicine interpreted along Marxist lines [...] should occupy its proper place within the context of educational activities aimed at shaping the worldview and ideas, in the pedagogical and research activities of all institutions that deal with the teaching, education and further training of physicians [...] it should thus contribute to the development of the ideological and political maturity of physicians and other healthcare workers." Like Matoušek before him, Niklíček

69 Emilie Těšínská, "Bibliografie prací doc. PhDr. Ladislava Niklíčka, csc.", in: *Práce z dějin Akademie věd – Studia Historiae Academiae scientiarum, A* (Prague: Archiv Akademie věd 1997): 11–28.

70 Čestmír Müller, Ladislav Niklíček and Jaroslav Kapr, *Úvod do studia medicíny* (Prague: Státní pedagogické nakladatelství 1978).

71 Vilibald Bílek and Ladislav Niklíček, *Úvod do studia dějin zdravotnictví a sociálního lékařství* (Prague: Státní pedagogické nakladatelství 1976).

also outlines some practical paths towards such desiderata, especially in terms of the methodology, orientation of research, and the organisational structure of the history of medicine as a discipline.<sup>72</sup> His textbook *Přehled dějin českého lékařství a zdravotnictví* [An Overview of the History of Czech Medicine and Healthcare] from 1989 offers a sound interpretation not only in the spirit of the field as it was defined then, but also from today's perspective. In the introduction to this text, which appeared shortly before the fall of the Communist regime in Czechoslovakia, he naturally still used the then dominant Marxist terminology and was not permitted to avoid the prerequisite ideologizing clichés and references (e.g. to 'progressive traditions' or 'Soviet models').<sup>73</sup>

As the foremost expert on the contemporary history of medicine and healthcare, Niklíček participated in the conceptual formation and re-profiling of medical history shortly after 1989. At that time, he published several programmatic texts on the development, current state and mission of the history of medicine as a field of research and a teaching subject, notably the methodical manual *Úvod do studia dějin lékařství* [Introduction to the Study of the History of Medicine].<sup>74</sup> In these texts, we find not only definitions of the principles and tasks of this field, updated in view of the political and social changes in Czechoslovakia after the fall of Communism, but also a more detailed explanation of Niklíček's theoretical sources and methodological principles.

He still defined the "history of medicine and healthcare" in the same way as in the 1980s, and his definition of the function of the field had likewise stayed the same: "to find and solve numerous current problems of health and healthcare". Niklíček's conviction about the tasks of historians of medicine and the impact of his publications on discussions concerning healthcare reform in the 1990s highlight the importance of the history of medicine for medicine and healthcare beyond education. Among his sources of inspiration, he emphasised "the most important historian of medicine of the first half of the twentieth century, H. E. Sigerist".<sup>75</sup> Niklíček could now speak about the philosophical and ethical

72 Ladislav Niklíček, "Úvahy nad historií vědy a techniky. Dějiny lékařství a zdravotnictví v Institutu pro další vzdělávání lékařů a farmaceutů v Praze", *Dějiny věd a techniky* 17 (1984), no. 2: 123–129.

73 Ladislav Niklíček, *Přehled dějin českého lékařství a zdravotnictví, (I. do roku 1945)* (Brno: Institut pro další vzdělávání pracovníků ve zdravotnictví 1989): 1–3.

74 Ladislav Niklíček and Růžena Šimberská, *Úvod do studia dějin lékařství* (Brno: Institut pro další vzdělávání pracovníků ve zdravotnictví 1991).

75 Henry E. Sigerist was a Swiss American historian of medicine and advocate of systems of universal healthcare. He is considered as one of the pioneers of the social history of medicine. Wolfgang Uwe Eckart and Robert Jütte, *Medizingeschichte. Eine Einführung* (Cologne: Böhlau 2007): 156–159.

impact of medical history without ideological connotations. Methods specific to the social history of medicine could be used both within the framework of 'authentic Marxism' and outside Marxism. He still praised the Soviet historian Bonifaty Mikhailovich Kedrov and his principle of integration (connecting external and internal actors of history). Niklíček also briefly mentioned some directions taken by Western historians of medicine in the early 1990s. Awareness of these trends was starting to spread among Czech historians as well – for instance in the form of interest in cultural history. Niklíček himself did not manage to respond to them, in part because of his tragic early death in a railway accident.<sup>76</sup> In several texts, he aptly characterised his foreign sources of inspiration, especially Sigerist, but also some of his Czech predecessors (including Schrutz, Vinař, and Matoušek).<sup>77</sup>

After 1989, Niklíček's long-standing interest in the social history of medicine was expressed not only in theoretical texts but also in other ways. His studies on the system of public healthcare and health insurance in interwar Czechoslovakia were closely related to his role as expert and advisor to the Ministry of Health and other institutions during the period of radical healthcare reforms in the first half of the 1990s. Although he admitted that "historiography on its own can never serve as a manual for concrete solutions for new concrete historical situations," he emphasised that "it can in an important way highlight what should be avoided in our current situation." His research orientation was most notably reflected in his advocacy in favour of the re-establishment of medical chambers.<sup>78</sup>

Ladislav Niklíček, a non-dogmatic (or, in his own words, 'authentic') Marxist, can be considered the third most influential representative of the (re)formation of the field of the history of medicine in the Czech Republic, after Ondřej Schrutz and Miloslav Matoušek. His studies on the social history of medicine and the organisation of healthcare, both before and after 1989, have remained relevant for research into the history of Czechoslovak medicine and healthcare during the interwar era. No less influential were his methodical introductions to the study of medicine and the history of medicine. In practice, the extent to which his writings and lectures have contributed to alleviating medical

76 Niklíček and Šimberská, *Úvod do studia dějin lékařství* (1991): 5–18.

77 Ladislav Niklíček, "Vývoj a současné problémy české historiografie lékařství a zdravotnictví", *Dějiny věd a techniky* 25 (1992), no. 1: 1–16.

78 Ladislav Niklíček, "Historiografie medicíny a naše zdravotnictví (Lékařské komory, jejich poslání v minulosti a současnosti)", *Plzeňský lékařský sborník* 60 (1991): 117. Medical chambers are independent, non-political autonomous professional organisations responsible for the interests, the professionalism, the ethics and the honour of the medical profession, see <http://www.lkcr.cz/czech-medical-chamber-cmc> (accessed on 17.1.2025).

uncertainty among several generations of students and graduates of Czech medical faculties cannot be determined. What is certain, however, is that this charismatic man had a huge influence on many historians of medicine, including myself.

## 5 Epilogue: after the End of the Communist Regime (1989-present)

After the fall of the Communist regime in Czechoslovakia in late 1989 and early 1990, the field of the history of medicine, as well as other humanities and social sciences taught at medical faculties, underwent significant changes. The Institute for the History of Medicine of the First Faculty of Medicine of Charles University remained the main institutional base, but its scientific focus changed. In connection with the research priorities of its heads, the institute expanded its scope from the history of Prague medical faculties (Associate Professor Ludmila Hlaváčková<sup>79</sup>) to palaeopathology (Professors Eugen Strouhal<sup>80</sup> and Václav Smrčka<sup>81</sup>), medieval medicine (Professor Milada Říhová<sup>82</sup>) and early modern medicine (Associate Professor Karel Černý). It is also more prominent in both undergraduate and, since 2004, graduate studies.

Research into the history of medicine also takes place in contact with the most recent international trends at other university departments and institutes outside medical faculties, both in Prague and at some new provincial universities within the Czech Republic (Pardubice and České Budějovice, among others).<sup>83</sup>

The teaching of other humanities and social sciences at medical faculties also underwent far-reaching changes after 1990. Institutes of Marxism-Leninism were immediately abolished and replaced by institutes of social sciences with varied foci (for instance, the current Institute for Medical Humanities at the First Faculty of Medicine of Charles University).<sup>84</sup>

These institutes and departments now pay much more attention to medical ethics. Since 1993, medical ethics has existed as a separate medical field taught at all medical schools in the Czech Republic. It has its own textbooks

79 Černý and Hlaváčková (eds.), *Biografický slovník*, I (2018): 95.

80 Černý and Hlaváčková (eds.), *Biografický slovník*, II (2020): 97–98.

81 Černý and Hlaváčková (eds.), *Biografický slovník*, II (2020): 92.

82 Černý and Hlaváčková (eds.), *Biografický slovník*, II (2020): 81.

83 Černý, “History of Medicine in the Czech Republic” (2016): 190–194.

84 See [http://uhsl.wz.cz/a\\_index.htm](http://uhsl.wz.cz/a_index.htm) (accessed on 19.5.2022)

and publications and, from time to time, it participates in lively discussions among the medical profession.<sup>85</sup>

The earlier institutes of social medicine and organisation of healthcare have also been transformed, so that, for instance, at the First Faculty of Medicine of Charles University there now exists an Institute of Public Health and Medical Law.<sup>86</sup>

## 6 Conclusions

Efforts to provide medical students and future physicians with some support in their professional uncertainty, connected for instance with the dynamic development of biomedical sciences in the twentieth century, took the form of variously oriented introductions to study, among others. A prominent place in those introductions was also given to the history of medicine and medical ethics. In the case of the Prague university/universities and its medical faculty/faculties, such efforts have been taking place with some prominence from the late nineteenth century to the present day. There have been lectures on the history of medicine in the medical faculty of Charles University since the late nineteenth century. With the exception of a short period when they were mandatory, they have been an optional part of introductory studies, formerly known as medical hodegetics. Parallel to teaching, there have been intensive research activities in the history of medicine for generations.

The continuity of institutionalised research into and the teaching of the history of medicine in the Czech lands is beyond doubt. Its contents, however, pose a specific problem. The evolution of scientific paradigms in the historiography of medicine in the current Czech Republic was significantly disrupted several times in the course of the twentieth century by strong ideological influences and pressures linked to repeated radical changes of the political regime (1939, 1945, 1948, 1968, 1989).

The task of analysing the arguments that have been used to legitimise the history of medicine is made more difficult by the political rhetoric in which these arguments needed to be garbed, particularly during the second half of the twentieth century.

Like the legitimisation strategies of German historians of medicine mentioned above, we find in the works of their Czech colleagues both general

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85 Haškvcová, *Lékařská etika* (2015).

86 See <https://usm.lfi.cuni.cz/~ppetri/index-en.html> (accessed on 19.5.2022).

declarations and – though markedly less frequently and only in the works of some historians – more specific and pressing demands. More general arguments (*'Historia magistra vitae'*) appear in introductions to textbooks or monographs, while more concrete ones (solving current health and healthcare problems) can also be found in official documents linked to the establishment of new working positions or institutions (Schrutz, Vinař, Matoušek), or in separate theoretical works (Niklíček).

As in the work of the German historian of medicine Karl Sudhoff, we also find in the work of a Czech author (Matoušek) two strands of argumentation: one concerning the history of medicine as a field of research, and another concerning the history of medicine as a subject to be taught and studied. Among the concrete arguments highlighting the relevance of historical models for solving current problems, we most frequently find issues linked to the medical profession and its organisation or ethics (Cedrych, Niklíček). The most influential historian of medicine, whose arguments were listened to by those responsible for the organisation of healthcare, also on the ministerial level, was undoubtedly Ladislav Niklíček, who retained this position both before and after 1989 under two different political regimes.

Czech sources contain relatively few arguments that defend the history of medicine as a discipline by highlighting to its usefulness for future physicians. This makes it especially hard to say whether this field could also help in addressing the pressing problem of medical uncertainty. Schrutz touched upon this subject rarely and superficially, in speaking about 'a unified view of life' and the 'advanced fragmentation of specialised studies'. In the case of Matoušek, one could interpret, as relevant to this issue, his claim that the study of history enriches the specialised studies of medical students and strengthens them in their future profession.

Occasionally, one can also trace in the sources the reaction of students to the lectures that were offered. They are either positive (Watzka, Vinař, Matoušek), neutral (Sinkulová), or take the form of complaints over their absence (Cedrych).

The teaching of and research into the history of medicine has also taken place at the current First Faculty of Medicine, at the specialised Institute for the History of Medicine, without interruption (except for the Second World War) since 1924, which makes it one of the oldest in Europe. While until the 1960s the history of medicine at this institute was mostly the domain of physicians interested in history, since the 1980s the profile of the institute has been determined mainly by graduate historians specialising in the history of medicine. Similar institutes or departments exist or have existed at several other medical faculties in the current Czech Republic.

The political changes after 1989, naturally, also led to a significant shift in the ideological message of teaching the history of medicine or medical ethics. Instead of educating highly qualified and politically aware socialist physicians, as in the 1980s,<sup>87</sup> the goal now is the quality of ethical behaviour and decision-making within medical practice.<sup>88</sup>

### Acknowledgements

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87 Müller, Niklíček, and Kapr, *Úvod do studia medicíny* (1980): 4.

88 Haškovcová, *Lékařská etika* (2015): 197.

## A Humanistic Addition to the Medical Curriculum?: The History of Medicine in Finnish Medical Education from the 1930s to the 1980s

*Sari Aalto*

As a result of rapid scientific developments, concerns about an excessive emphasis on biomedicine in medical culture appeared in the discussion among leading physicians at the turn of the twentieth century. They saw the incorporation of the history of medicine into the curriculum as a way of balancing medical education, as explained in the first chapter of this volume. The discussion reflected the dichotomy of medicine as science and medicine as art, or biomedical and holistic views on medicine. John Harley Warner wrote that medical educators turned to history as “a humanising force” in the age of scientific breakthroughs that was considered – despite its success – a threat to “humanistic values fundamental to professionalism and the art of medicine”. The idea that medical education is incomplete without a humanistic component has been present ever since. Until the 1960s and 1970s, this humanistic component was likely to be the history of medicine. Subsequently, the concept of medical humanities, including history, ethics, literature, and philosophy, gained more ground.<sup>1</sup>

Although Finnish physicians were traditionally interested in history, there was not much discussion about the role of the subject in medical education before the 1960s. The main concern of the faculties of medicine was to ensure the best medical knowledge in combination with practical clinical skills and to meet societal requirements. Nevertheless, courses in the history of medicine began in the 1930s on a voluntary basis. When the biomedical emphasis became a target for criticism again in the 1960s, the history of medicine was never mentioned as a tool to deal with it. Instead, suggestions to add

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1 John Harley Warner, “The Humanising Power of Medical History: Responses to Biomedicine in the 20th-Century United States”, *Medical Humanities* 37 (2011): 91–96; Adam Bleakley, *Medical Humanities and Medical Education. How the Medical Humanities Can Shape Better Doctors* (London/New York: Routledge 2015): 12–18; Lauri Honko, “Kulttuuri ja sairaus”, in: Katja Hyry (ed.), *Sairaus ja ihminen. Kirjoituksia parantamisen perusteista* (Helsinki: SKS 1994): 16–21; Motzi Eklöf, *Läkarens ethos. Studier i den Svenska läkarkårens identiteter, intressen och ideal 1890–1960* (Linköping: Linköpings universitet 2000): 60–62, 87.

psychology and sociology to the curriculum were made, so that students would learn to understand the complexities of modern society and the diseases it caused.<sup>2</sup> However, a new decree for medical degrees, issued in 1975 (762/1975),<sup>3</sup> stated that medical students should learn the history of medicine also.

Against this backdrop, such explicit support for this discipline is interesting as it was rather exceptional within the international context. In this chapter, I will unravel the contextual and more contingent personal factors that explain the sudden revival of the history of medicine in Finland in general, and at the University of Helsinki in particular. I will also explain why the subject enjoyed a short ‘golden age’ in the 1970s and early 1980s. To understand this, it is essential to discuss the long-term development of the history of medicine in Finland and also to provide background information on other Nordic countries. I will begin the chapter by introducing the humanistic ideas in medical education and the development of the studies before the 1960s. Then, I will discuss how the history of medicine was taught and how it was seen during the 1970s reform. An important element in this process was the establishment of the Department and Museum of the History of Medicine (Lääketieteen historian laitos ja museo) at the University of Helsinki. Nordic cooperation and discussions also played a role. Finally, I will take a closer look at the teaching of the subject at the Faculty of Medicine in Helsinki. In this way I will show that several factors, both structural and personal, coalesced in the early 1970s to bring about a (short) period of unprecedented institutional consolidation for the history of medicine.

I have combined different source materials. Information about the courses of the history of medicine in Finland is mainly available in the archives of the University of Helsinki, where the documents of the Department and Museum of the History of Medicine are also preserved. The yearbooks of Nordic medico-historical societies (*Nordisk Medicinhistorisk Årsbok*)<sup>4</sup> and the Finnish Medico-Historical Society (*Hippokrates*) have been invaluable, especially in providing perspectives from all Nordic countries. Articles from different medical journals are also used: *Duodecim*, published by the Finnish Medical Society, the student magazine *Medisiinari*, and the Nordic medical journal *Nordisk Medicin*. Apart from a few introductory texts,<sup>5</sup> the teaching of the history of

2 Sari Aalto, *Medisiinarit, ammattiin kasvaminen ja hiljainen tieto. Suomalaisen lääkärinkoulutuksen murroksen vuodet 1933–1969* (Helsinki: Helsingin yliopisto 2016): 261, 309–313.

3 “Asetus lääketieteellisistä tutkinnoista”, *Suomen Asetuskokoelma* (1975), no. 762.

4 Predecessors were *Föreningen Medicinhistoriska museets vänners årskrift* (1953–1957) and *Medicinhistorisk årsbok* (1958–1967), the successor is *Svensk medicinhistorisk tidskrift* (1997).

5 E.g. Hindrik Strandberg, “Undervisning i medicinens historia i Finland”, *Svensk Medicinhistorisk Tidskrift* 1 (1997), no. 1: 17–20; Hindrik Strandberg, “Undervisningen i medicinens historia i Finland – några reflexioner”, *Dansk medicinhistorisk årbok* (1994): 9–16.

medicine in Finland has never been researched before. Among other literature, my own previous research into the history of Finnish medical education and into the development of the Finnish medical profession provides the broader contextual background.<sup>6</sup>

Internationally, the position of history in medical education has been subject to much research. Some research articles have been important in contextualising the Finnish discussion. John Harley Warner and Frank Huisman have discussed the roles assigned to and the meanings associated with the history of medicine. Their observation that the history of medicine was called upon to balance the curriculum is also evident in my case study.<sup>7</sup> The article by David S. Jones, Jeremy A. Greene, Jacalyn Duffin and John Harley Warner about the ways in which medical history has been legitimised at different times, has provided an international perspective to compare with the Finnish material.<sup>8</sup> Laurits Lauridsen has discussed the teaching of the history of medicine in Nordic countries, also offering valuable insights into the development of medical history in the academic world, and the changes that occurred in the 1960s and 1970s.<sup>9</sup> *Medical humanities and medical education* by Adam Bleakley reviews the development of medical humanities.<sup>10</sup>

As this research has shown, the discussion in the 1960s and 1970s about the modernisation of medical education and the possible inclusion of humanities into medical studies was by no means typically Finnish, but rather international. What was unique in Finland, however, was the extent to which the history of medicine was brought to the fore in this debate and even enshrined in law as part of medical training. By using a great deal of original and personal source material and by paying close attention to the Northern European

6 Aalto, *Medisinarit, ammattiin kasvaminen ja hiljainen tieto* (2016); Samu Nyström (ed.), *Vapaus, terveys, toveruus. Lääkärit Suomessa 1910–2010* (Helsinki: Suomen Lääkäriliitto/Fennomed 2010).

7 Harley Warner, “The Humanising Power of Medical History” (2011): 91–96; Frank Huisman, “Creating Reflective Citizen-Physicians: Teaching Medical History to Medical Students”, in: Solveig Jülich and Sven Widmalm (eds.), *Communicating the History of Medicine. Perspectives on Audiences and Impact* (Manchester: Manchester University Press 2020): 18–42; Frank Huisman and John Harley Warner, “Medical Histories”, in: Huisman and Warner (eds.), *Locating Medical History. The Stories and Their Meanings* (Baltimore/London: The Johns Hopkins University Press 2006): 1–30.

8 David S. Jones, Jeremy A. Greene, Jacalyn Duffin and John Harley Warner, “Making the Case for History in Medical Education”, *Journal of the History of Medicine and Allied Sciences* 70 (2014) no. 4: 623–652.

9 Laurits Lauridsen, “Medicinens historia som universitetsämne i de nordiska länderna”, *Svensk Medicinhistorisk Tidskrift* 1 supplement (1997): 11–16.

10 Bleakley, *Medical Humanities and Medical Education* (2015).

context in which the Finnish representatives of the discipline found themselves, I will reveal the underlying circumstances that explain this exceptional Finnish position. During this period, professors in the history of medicine never explicitly defended their courses from the idea of teaching students to deal with medical uncertainty, but the arguments they used showed such a striking continuity that their ambitions were comparable to those of their former (and current) colleagues.

## 1 Humanistic Tradition in Finnish Medical Education

Traditionally, culture, humanistic subjects, and arts were an integral part of the academic way of life and the established ideal of a university student. In medicine, a good relationship with patients, a holistic view, and social skills were seen as products of classical liberal education of the Humboldtian university, dedicated to a broad general education, or *Bildung*. By the early twentieth century, there were fears that technical and scientific progress would detract from medical craftsmanship and bedside skills. In this context, the history of medicine was called upon to help students become “physicians with civic responsibility”, as Frank Huisman and John Harley Warner wrote.<sup>11</sup>

At the University of Helsinki, where all Finnish physicians were educated until the 1940s, the connection between medicine and the humanistic tradition was present in two forms. Firstly, the route to the Faculty of Medicine ran through the Faculty of Philosophy until 1945. Until 1889, students needed a preparatory degree from the Faculty of Philosophy (where the natural sciences were also taught) in order to matriculate at the Medical Faculty. In 1889, a more restricted medico-philosophical examination was introduced for those seeking a medical career. The new examination consisted of natural sciences only. However, academic freedom still made it possible to study humanities at the Faculty of Philosophy, at least in principle. More importantly, the general ethos of a characteristically humanistic university was part of the mentality of physicians and tacit knowledge of medical education.<sup>12</sup> Secondly, humanistic values

11 Bleakley, *Medical Humanities and Medical Education* (2015): 8–9, 12–13; Huisman, “Creating Reflective Citizen-Physicians” (2020): 19; Huisman and Warner, “Medical Histories” (2006): 10–11; Jones a.o., “Making the Case for History in Medical Education” (2014): 627–629.

12 Aalto, *Medisinarit, ammattiin kasvaminen ja hiljainen tieto* (2016): 37–42, 54; Robert D. Anderson, *European Universities from the Enlightenment to 1914* (New York/Oxford: Oxford University Press 2004): 105–111. About the ideal of the Swedish physician at the beginning of the twentieth century, see Eklöf, *Läkarens ethos* (2000): 291–292.

were also visible in the professional ethical guidelines, which often referred to the classical texts, such as the oath of Hippocrates. These guidelines created the ideals of a vocational nature of the physician's task and a holistic view: medicine was not only science, but it was also art.<sup>13</sup>

Despite this humanistic tradition, practical, scientific, and professional requirements set the pace for the development of the Finnish medical curriculum. Professors usually emphasised scientific substance, while medical students and graduates insisted on a more practical orientation. The state emphasised the needs of the wider society, public health and preventive medicine. As the number of physicians was low, they had to be able to work as general practitioners and on their own, the latter especially in more rural areas.<sup>14</sup> In 1945, the professional orientation of medical education became even stronger, when the studies at the Faculty of Philosophy were removed, and a mandatory undergraduate training period was introduced.<sup>15</sup> At the same time, the medical profession was undergoing changes. Biomedical sciences were progressing intensively, specialisation became more common, and new sub-specialities were introduced. New drugs and technologies brought powerful tools for diagnostics, treatment, and healing.<sup>16</sup>

Partly due to these changes, Finnish medical students of the 1940s and 1950s were more professionally oriented than the earlier generations.<sup>17</sup> Some older physicians noted this, writing in the student magazine *Medisiinari* that medical students concentrated too narrowly on medicine, and took a materialistic and mechanistic approach towards patients and their diseases. This was seen to be due to “the present egoistic mentality” that had grasped the medical profession<sup>18</sup> and older physicians reminded students about the humanistic nature of the profession. For example, under the pseudonym of “Granddad”, an individual demanded a broader general knowledge that, according to him, medical students could achieve through contact with students of other disciplines, as

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- 13 Sari Aalto, “Ilman kollegiaalisuutta ei ole lääkäreitä. Lääkäriyhteisö ja ammattikunnan kulttuuriin kasvaminen”, in: Nyström (ed.), *Vapaus, terveys, toveruus* (2010): 55–57; Max Oker-Blom, *Lääkärintoimi ja sen etiikka* (Helsinki: Otava 1911, 2000): 4–7; Gösta Becker, “Lääketieteestä ja lääkärintoiminnasta”, *Duodecim* 44 (1928), no. 1: 14–22.
- 14 Aalto, *Medisiinarit, ammattiin kasvaminen ja hiljainen tieto* (2016): 318–321.
- 15 *Helsingin yliopistossa lääketiedettä ja hammaslääketiedettä opiskelevien vuonna 1945 vahvistetut uudet tutkintovaatimukset* (Helsinki: Akateeminen Kirjakauppa 1946).
- 16 Oona Ilmolahti, “Lääkärit ja lääketaidon kokemus”, in: Nyström (ed.), *Vapaus, terveys, toveruus* (2010): 346–348.
- 17 Aalto, *Medisiinarit, ammattiin kasvaminen ja hiljainen tieto* (2016): 134–138.
- 18 Quotation from “Sedän mietteitä”, *Medisiinari* (1953), no. 9: 30–31; see also Risto Pätiälä, “Vakavia sanoja kutsumuksesta”, *Medisiinari* (1953), no. 7: 6–7; “Sedän mietteitä”, *Medisiinari* (1954), no. 5: 33; Sakari T., “Numerus clausus eli mietelmiä matkan jälkeen”, *Medisiinari* (1956), no. 7: 17; Sakari T., “Numerus clausus”, *Medisiinari* (1957), no. 2: 42–43.

well as by reading literature and exploring the arts. Knowledge of different cultures and languages were important aspects for a good physician,<sup>19</sup> and these skills were often traditionally mentioned as necessary requirements to be obtained at the *Bildung*-university. Once again, purely biomedical education was seen to be too limited,<sup>20</sup> though in *Medisiinari*, students often defended themselves against this criticism by referring to an incredibly comprehensive curriculum that left absolutely no time for anything else other than medicine.<sup>21</sup>

Although there was a growing concern about the general *Bildung* of medical students, it could be argued that the students themselves still embraced the idea of an academic class with a broad general, humanistic knowledge. For example, *Medisiinari* regularly published book reviews and discussed cultural issues.<sup>22</sup> In some issues from 1955, culturally active medical students were explicitly brought to the fore. Many of them were musicians, and one student was able to combine his role as a performing actor in a small theatre alongside that of being an undergraduate.<sup>23</sup> Psychological studies were seen as one way to broaden the mental horizons of medical students, as well as to improve their ability to understand patients. Psychology was added to the curriculum on the initiative of the student associations in Turku in 1950, and in Helsinki a few years later.<sup>24</sup>

The general education of medical students took place mainly on a voluntary basis. Arts and humanistic subjects were highly valued, but it seems that, possibly due to the tight study schedule, students did not have enough time for studies in other disciplines or culture. In the early 1960s, a new wave of concern emerged about the students' low interest in cultural and societal issues. Students who especially had more radical cultural liberal views claimed that medical students were too passive in these areas. They considered culture and the arts, as well as social sciences and other studies outside the medical faculties, as important for future physicians to be able to connect healthcare to the broader societal context, and to understand patients having different socio-economic backgrounds,<sup>25</sup> and these ideas went on to influence the reform of medical education in the 1970s.

19 "Herr redaktör", *Medisiinari* (1957), no. 7: 62.

20 See, for example, Huisman and Warner, "Medical Histories" (2006): 14–17.

21 Aalto, *Medisiinarit, ammattiin kasvaminen ja hiljainen tieto* (2016): 184–185.

22 E.g. *Medisiinari* (1949), no. 3: 16–18; (1950), no. 3: 22–24; (1954), no. 1: 24–25; (1954), no. 7: 46–50; (1954), no. 9: 48–49; (1955), no. 7: 34–35; (1955), no. 8: 30–32; (1956), no. 1: 33; (1956), no. 5: 36–37.

23 "Monipuolisia medisiinareita", *Medisiinari* (1955), no. 3: 46–47; (1955), no. 4: 48–49; (1955), no. 5: 57–59; (1955), no. 6: 32–33; (1955), no. 7: 38–39; Jorma Mäenpää, "Tom Krause", *Medisiinari* (1955), no. 5: 55.

24 Aalto, *Medisiinarit, ammattiin kasvaminen ja hiljainen tieto* (2016): 163–164.

25 Aalto, *Medisiinarit, ammattiin kasvaminen ja hiljainen tieto* (2016): 247–249.

## 2 Two Pioneers of the History of Medicine

What was the role of the history of medicine in Finnish medical education? Before the 1970s, it was highly limited. Teaching was the responsibility of two men, who offered optional courses in Helsinki and Turku, respectively. The issue of medical history did not come up in the proceedings of the faculty meetings, which mirrors the marginal position of the subject. At the same time, it is probable that professors of different medical and clinical disciplines discussed the history of their own specialty in their lectures.<sup>26</sup> In addition, many physicians were interested in the historical development of medicine. Historical articles were published regularly in medical journals, and it was typical to include long-term overviews in research articles.<sup>27</sup> In their inaugural lectures, new professors traditionally made some reference to the history of their discipline.<sup>28</sup> Usually, the physicians' historical accounts were descriptive, emphasising anecdotes, important personalities, and major scientific breakthroughs.<sup>29</sup>

At the turn of the century, there had been European-wide enthusiasm about the history of medicine.<sup>30</sup> In Finland, Professor of Physiology Robert Tigerstedt had suggested that the subject should be added to the curriculum.<sup>31</sup> However, this did not happen, and the faculty did not return to the idea. In 1928, Professor of Anatomy Yrjö Kajava reviewed a new biography of Finnish district physicians. The biography was written by Gunnar Soininen (until 1935 Gunnar Johnsson<sup>32</sup>), a young medical student, who exhibited a profound interest in the history of medicine. In his review, Kajava pointed out that there was only

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- 26 See for example, Raimo Lind, *Maalaispojasta kunnanlääkäriksi* (Kouvola 2013): 234; Huisman and Warner, "Medical Histories" (2006): 7–8.
- 27 E.g. Hjalmar Söderström, "Tuberkuloosi Helsingissä viimeksi kuluneiden 120 vuoden aikana", *Duodecim* 47 (1931) no. 9: 728–740; Gunnar Soininen, "Lapsivuodekuumeen etiologiateorioita 1800-luvun keskivaiheilla", *Duodecim* 49 (1933) no. 2: 196–208; Veikko Kahelin, "Synnytystiheydestä 1700-luvulla", *Duodecim* 50 (1934) no. 4: 360–372; Akseli Koskimies, "Piirilääkärilaitoksemme", *Duodecim* 59 (1943) no. 5: 202–211.
- 28 Sakari A. Härö, "Gunnar Soininen – historioitsija, vaikuttaja, osallistuja", *Hippokrates. Suomen Lääketieteen Historian Seuran vuosikirja* 1 (1984): 143.
- 29 E.g. Guenter B. Risse, "The Role of Medical History in the Education of the 'Humanist' Physician", *Journal of Medical Education* 50 (1975) no. 5: 458–465.
- 30 See chapter 1 of this volume.
- 31 Robert Tigerstedt, *Den medicinska undervisningen i Sverige, Norge, Danmark, Tyskland och Österrike jämte förslag till förändringar i densamma vid Finlands universitet* (Helsinki 1911): 162.
- 32 In that period, there were campaigns in Finland to change the Swedish-language surnames into Finnish. In 1934, Gunnar Johnsson changed his name to the Finnish surname Soininen. For simplicity, I use his Finnish surname in this chapter. Härö, "Gunnar Soininen" (1984): 146.



FIGURE 3.1 Gunnar Soininen was a pioneer of the history of medicine in Finland. He contributed significantly to the establishment of the Department and Museum of the History of Medicine at the University of Helsinki. This picture of Soininen from 1973 is from the museum.

SOURCE: HELSINKI, TIEDEMUSEO LIEKKI

little medico-historical research in Finland. He assumed that this reflected a lack of teaching and that “the practical nature of medicine also tends to direct the student’s interests mainly towards subjects relating to the practice of medicine, to the detriment of the theoretical subjects of medicine, not to mention the history of medicine.”<sup>33</sup>

During the next decades, Gunnar Soininen became a pioneer in the history of medicine in Finland (see Figure 3.1). In 1932, he defended his medico-historical doctoral dissertation about the conception of diseases by the Professor of Medicine Israel Hwasser (1790–1860). This was the first Finnish doctoral dissertation in this field and, soon after that, Soininen became Docent of the History of Medicine. Soininen was supported by Professor Kajava, who possibly influenced the subject of Soininen’s dissertation,<sup>34</sup> and Professor of Medicine

33 Yrjö Kajava, “Johnsson, Gunnar, *Suomen piirilääkärit* (book review)”, *Duodecim* 44 (1928), no. 3: 280–281.

34 Harald Teir, “Gunnar Soininen är borta”, *Nordisk Medicinhistorisk Årsbok* (1974): 28.

Gösta Becker, who wrote a favourable review of the work in *Duodecim*.<sup>35</sup> In the academic year of 1933–1934, Soininen began lecturing on the history of medicine for medical students serving at the clinic of propaedeutics, led by Becker – Soininen worked at the same clinic. He offered this lecture course regularly until the academic year of 1958–1959. Soininen also wrote historical articles in medical journals and some history books.<sup>36</sup> It is not absolutely clear why he stopped teaching the course, but it was possibly removed due to a declining popularity amongst the students.<sup>37</sup>

In the archives of Soininen, there are small slips of paper that can be interpreted as notes for the introductory course on the history of medicine. The course consisted of between twenty-one and twenty-four individual lectures, seven or eight of them focussing on Finnish developments. The structure of the course was chronological, beginning from ancient and medieval times. The emphases were the history of ideas, biographies of famous physicians, and the changing conceptions of diseases. The advances of Western medicine before and after the scientific revolution were also discussed. Finnish developments were mainly considered from the viewpoint of healthcare institutions, but one lecture discussed folk healing and the great epidemics. The notes suggest that Soininen's lectures covered successive ideas in medicine, practical healing, and the development of the medical profession, as well as medical institutions.<sup>38</sup> It seems that Soininen tried to put the development of medicine into a wider historical context – an aspiration that is also visible in his historical articles.

It is difficult to say how students felt about Soininen's teaching. He is seldom mentioned in the memoirs of physicians,<sup>39</sup> with the exception of Harald Teir, who later became Professor of Pathological Anatomy and Soininen's successor in the field of the history of medicine. Discussing a summer course in the late 1930s in which half of the class participated, Teir describes Soininen's teaching as follows: “without affectation, with dry humour and with marked humility,

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35 Gösta Becker, “Johnsson, Gunnar, *Om sjukdomsorsakerna enligt Israel Hwasser* (book review)”, *Duodecim* 49 (1933), no. 6: 550.

36 See the programmes of the University of Helsinki. *Helsingin yliopiston ohjelmat* (1933–1959); Also, Härö, “Gunnar Soininen – historioitsija, vaikuttaja, osallistuja” (1984): 144–149.

37 Oral notification from Hindrik Strandberg to the author, 7.2.2023.

38 Helsinki, Archives of the University of Helsinki (HUA): Archives of Gunnar Soininen (GSA), GS-5 Gunnar Soinisen kirjoitukset, *Slips of paper consisting of the programme of the history of medicine course and lecture notes*.

39 Finnish physicians have written a lot of memoirs, and it has not been possible to go through them all for this chapter.

he gave us a lasting insight into the world's health problems through centuries."<sup>40</sup> Soininen was also responsible for teaching social medicine, especially healthcare legislation, social insurances, and medical certificates. Sakari Härö, who later worked for the Lääkintöhallitus (National Board of Health), wrote that, in these lectures, Soininen relied on his broad historical knowledge and emphasised the ethical dimensions of a physician's work.<sup>41</sup>

Another scholar who taught the history of medicine was Osmo Järvi, Professor of Pathological Anatomy, who worked at the University of Turku. The Turku Faculty of Medicine was founded in 1943, and Järvi was one of its first professors. It seems that Järvi soon began to give a lecture course in the history of medicine, but there is no information available as to its contents. This course was mentioned neither in the study programmes nor in the annual reports of the university. When the review of teaching the subject was under discussion in the 1970s, a list was made of the courses in Finland. According to this document, Järvi had been teaching the history of medicine since 1945, that the course lasted 20 hours per academic year, that it was optional, yet apparently very popular.<sup>42</sup>

### 3 Medical History Museums as a Sign of Enthusiasm for History

Prominent signs of the growing enthusiasm towards the history of medicine were the medical history museums, usually connected to universities. In the Nordic countries, the oldest museum was in Copenhagen, where a private medical history museum had been established in 1906. It was moved to the University of Copenhagen in 1917 and, at the same time, a professor of medical history working at the museum was appointed. However, the museum opened to the public only in 1969, thanks mainly to Vilhelm Møller-Christensen, who became Professor of Medical History and chairman of the Museum in 1964.<sup>43</sup>

40 Teir, "Gunnar Soininen är borta", (1974): 30.

41 Härö, "Gunnar Soininen – historioitsija, vaikuttaja, osallistuja" (1984): 146. See also Kalle Achté, *Lääkäriskoulussa Paasikiven aikaan* (Klaukkala: Recallmed 1993): 152.

42 HUA: Archives of the Medical history museum and department (MHA), Ha: 1, *Opetukseen liittyvät asiakirjat* (1976–2002), *Lääketieteen historian opetus Pohjoismaissa* (autumn 1976) and *A letter from Osmo Järvi to Harald Teir* (26.8.1976).

43 Lissa Børthy, "Medicinsk-historisk museum i København", *Nordisk Medicin* 82 (1969), no. 43: 1351–1353; HUA: *Promemoria concerning the Medical History Museum and Department*, attachment of the protocol of the Faculty of Medicine, 54§ (13.5.1969); "Vilhelm Møller-Christensen", *International Leprosy Association – History of Leprosy – Database*, <https://leprosyhistory.org/database/person307> (accessed on 27.5.2023).

In Sweden too, the idea of a medical history museum was kindled at the beginning of the century. To celebrate the centenary of the Swedish Society of Medicine in 1908, members of the society began to collect medical items. Yet, it was only in the 1950s that an association was established to implement the museum plan, which was finally established with the help of Ab Stille-Werner, a company producing medical instruments. It was inaugurated in Stockholm in 1955, and Docent of History of Medicine, Wolfram Kock, became chairman of the museum, although it was managed on a shoestring budget with a partly voluntary workforce.<sup>44</sup> Another Swedish Museum emerged in Gothenburg, the origins of which began in the attic of the Sahlgren hospital, where nurse Ingeborg Kastman began collecting items under her own initiative. The museum operated under the authority of the hospital, which had become a teaching hospital in 1949 when medical education began in Gothenburg. The medical history museum developed more professionally in the 1970s when it was relocated to an appropriate premises. Given that the starting point was the history of the hospital, the museum specialised in cultural and everyday history of healthcare, not the scientific development of medicine. The museum did not have a connection to teaching at the university, but nursing students especially visited it regularly.<sup>45</sup> Both of these Swedish museums were private and were not affiliated with the university institutions, although the museum in Stockholm did have a close relationship with the Medical University Karolinska Institutet.<sup>46</sup>

Usually, the aim of Nordic medical history museums was to contribute to education in the history of medicine, which was perfectly in line with a broader international trend. As Jonathan Reinartz has shown, general medical museums were central to instruction at medical schools during the nineteenth and early twentieth century, even to such an extent that he refers to this period as “the age of museum medicine”.<sup>47</sup> The establishment

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44 Anna Carin Bodén, *Medicinshistoriska museets vänner 50 år: det stora museiprojektet* (Stockholm: Medicinshistoriska museets vänner 2002): 11–12, 17–21; HUA: *Promemoria concerning the Medical History Museum and Department*, attachment of the protocol of the Faculty of Medicine, 54§ (13.5.1969).

45 The history of the museum, <https://medicinshistoriska.sahlgrenska.se/om-museet/museets-historia/> (accessed on 20.1.2023); The history of the University of Gothenburg, <https://www.gu.se/om-universitetet/historien-om-goteborgs-universitet> (accessed on 8.5.2023); Oral notification from Lisa Sputnes Mouwitz to the author, 9.5.2023.

46 Wolfram Kock, “Medicinens historia i läkarutbildningen”, *Föreningen Medicinska Museets vänner årskrift* (1953); Wolfram Kock, “Medicinshistorisk krönika”, *Nordisk Medicinshistorisk Årsbok* (1970): 6.

47 Jonathan Reinartz, “The Age of Museum Medicine: The Rise and Fall of the Medical Museum at Birmingham’s School of Medicine”, *Social History of Medicine* 18 (2005), no. 3: 419–437.

of the medical history museum at the University of Helsinki equally had a strong impact on the teaching of the subject. The museum was in the planning stages for a long time, with the Finnish Medical Association proposing the foundation of the museum as early as 1937, and the University of Helsinki taking over the responsibility of it. Docent Gunnar Soininen was appointed as the chairman. A small collection housed at the university's main building constituted the beginning of the museum, though during the Second World War, the collections were ruined in February 1944, when the building was bombed.<sup>48</sup>

The idea of the museum was revived in 1958, again on the initiative of the Finnish Medical Association. International museums functioned as an example, especially the one in Stockholm. As the old collections were lost, collecting historical medical items began again. *Primi motores* of the project were Gunnar Soininen and Associate Professor of Anatomy, Martti J. Mustakallio. The purpose of the planned museum was to present the history of medicine, nursing and healthcare, dentistry, veterinary medicine, pharmacy, and folk healing. The collection of items became one of the main tasks of the medico-historical society in Finland, Amici Historiae Medicinae, which was established in 1961. The first secretaries, Kivi Lydecken, Matti Haltia and Ulla-Kajja Tiihonen were medical students, and in the early 1960s, the society already organised a few small exhibitions at different locations.<sup>49</sup>

The birth of a real museum accessible to the public was not easy. At a first glance, it seemed that the University of Helsinki was not interested in investing in the project. Several negotiations took place before an appropriate space was found.<sup>50</sup> In the summer of 1968, the museum finally got a permanent home in a wooden building in the courtyard of the surgical clinic (see Figure 3.2). The building was not large, but it did allow permanent exhibitions and various activities. The museum had a collection of 2,000 artefacts, as well as photos, interview transcripts, and a library.<sup>51</sup> Meanwhile, the Museum of the History of Medicine at the University of Helsinki was inaugurated in February 1970

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48 Kaija Pakkala, "Lääketieteen historian kuvastin. Helsingin yliopiston Lääketieteen historian laitoksen ja museon syntyvaiheet", *Hippokrates. Suomen Lääketieteen Historian Seuran vuosikirja* 6 (1989): 191.

49 Pakkala, "Lääketieteen historian kuvastin" (1989): 191–192; Kalle Achté, "25-vuotias Suomen Lääketieteen Historian Seura 1961–1986", *Hippokrates. Suomen Lääketieteen Historian Seuran vuosikirja* 3 (1986): 187.

50 Pakkala, "Lääketieteen historian kuvastin" (1989): 195.

51 "Lääketieteen historian laitos ja museo", in: *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1968–1969* (Helsinki: Helsingin yliopisto 1969): 81–82.



FIGURE 3.2 In the summer of 1968, the medical history museum (Lääketieteen historian museo) found a permanent home in a wooden building in the courtyard of the surgical clinic. The museum was opened to the public in February 1970. The picture is from 1992.

SOURCE: HELSINKI, THE CITY MUSEUM OF HELSINKI. PHOTOGRAPHER: PIA PÄREPALO

by Chancellor of the University, Pentti Renvall. Rector Erkki Kivinen and guests from the Nordic medical history museums were present at the festivities, and the new museum quickly began to attract visitors. Researchers actively used the collections and the library for study, whilst the main visitors were students.<sup>52</sup> Nursing students had a mandatory course in the history of healthcare, and they usually visited the museum as part of their studies.<sup>53</sup> Later, the museum became an official visiting place for healthcare students.<sup>54</sup>

52 Hindrik Strandberg, "Medicinhistorisk krönika från Finland", *Nordisk Medicinhistorisk Årsbok* (1970): 24–25; "Lääketieteen historian laitos ja museo", in: *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1970–1971* (Helsinki: Helsingin yliopisto 1971): 72–73; (1972): 86; (1973): 82–83; (1974): 93–94.

53 Strandberg, "Undervisning i medicinens historia i Finland" (1997): 17.

54 "Lääketieteen historian laitos ja museo", in: *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1979–1980* (Helsinki: Helsingin yliopisto 1980): 86.

The faculty also founded a Department of the History of Medicine. The committee that had been established to plan its activities stressed the importance of research and teaching, and in the spring of 1969, stated in its report that the teaching of the history of medicine was an international trend. “As medicine is becoming increasingly technical, it is important to also emphasise human values in the Faculty of Medicine,” it was claimed. This reflected the idea that the history of medicine was necessary in balancing the medical curriculum, and it was important to strengthen humanistic aspects, both among staff and students.<sup>55</sup> Between the lines, the idea was that history would contribute to the education of humane and empathetic physicians.<sup>56</sup> The committee was chaired by Professor of Pathological Anatomy Harald Teir, who actively promoted medical history in the faculty. In 1973, following Gunnar Soininen’s death, Teir was appointed as the new chairman of the Department and Museum.<sup>57</sup> Besides the chairman, the staff of the institution consisted of the amanuensis, MA Hindrik Strandberg, and the museum curator, nurse Kaija Pakkala.<sup>58</sup>

#### 4 A New Decree for Medical Degrees Determines the Purpose of Education

The Department and Museum of the History of Medicine at the University of Helsinki became the leading actor in promoting the subject in Finland. The teaching was boosted by a reform of Finnish university education. The aims and content of medical education were redefined in 1975 when the decree for medical degrees was issued, with the history of medicine mentioned as one of the general objectives of the education. Although it mentioned medical history only briefly, the decree gave a new foundation for teaching the subject.<sup>59</sup>

In the 1960s, there had been a great deal of international discussion over the modernisation of medical education. In Finland, the content and structure of the curriculum had been the same for a long time, and different interest groups had pressed for change for many years. The state was looking for

55 HUA: *Promemoria concerning the Medical History Museum and Department*, attachment of the protocol of the Faculty of Medicine, 54§ (13.5.1969).

56 Harley Warner, “The Humanising Power of Medical History” (2011): 91–96.

57 “Lääketieteen historian laitos ja museo”, in: *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1972–1973* (Helsinki: Helsingin yliopisto 1973): 82–83.

58 “Lääketieteen historian laitos ja museo”, in: *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1970–1971* (Helsinki: Helsingin yliopisto 1971): 72–73.

59 “Asetus lääketieteellisistä tutkinnoista”, *Suomen Asetuskokoelma* (1975), no. 762.

a wholesale reform of university education. Within medicine, rapid scientific developments, increased specialisation, and the need to strengthen preventive and primary healthcare at the expense of traditionally prioritised hospitals played the main role. Societal and cultural changes, such as an increasing number of social problems, common degenerative diseases, and psycho-somatic symptoms, resulted in new demands towards physicians to work in preventive medicine and in close cooperation with other professionals. One of the issues that was also often brought up was a need to revise the doctor-patient relationship: physicians needed to have a more psychological understanding of their patients.<sup>60</sup> Social scientists and psychologists suggested adding social and behavioural sciences to the medical curriculum, an idea that was first supported by students and young physicians, especially those connected to the cultural radicalism of that time.<sup>61</sup> Soon these ideas spread, and medical authorities and faculties were also convinced, as testified by the agenda of the Nordic symposium on the reform of medical education in 1970.<sup>62</sup>

As medicine was becoming more technical and society more complex, the need to emphasise humanistic aspects in medical education was widely shared. Although the solution was usually sought in psychology and sociology, medical faculties also recognised the significance of the history of medicine. In the Helsinki faculty, this was stressed by professors who were involved with the new department of the history of medicine.<sup>63</sup> Students usually supported the trendier behavioural and social sciences of the time, but in 1966, one author in *Medisiinari* spoke in favour of studies in history, perceiving them as the best way for medical students to develop critical thinking and learn to weigh alternatives and probabilities.<sup>64</sup>

The reform of medical education began in 1969 on the initiative of the faculties and continued with new legislation prepared by the Ministry of Education. It became part of a large reform of university education that brought unified structure to all degrees. In medical education, new courses were added to the curriculum and clinical teaching was built into integrated blocks. Practical viewpoints were prominent, as teaching in outpatient healthcare was

60 Oona Ilmolahti, "Lääkärit ja lääketaidon kokemus" (2010): 389–392.

61 Marja Jalava, *The University in the Making of the Welfare State. The 1970s Degree Reform in Finland* (Frankfurt am Main: Peter Lang 2012): 71–77; Aalto, "Ilman kollegiaalisuutta ei ole lääkäreitä." (2010): 119–123; Aalto, *Medisiinarit, ammattiin kasvaminen ja hiljainen tieto* (2016): 258–262.

62 "Målsättning inom läkarutbildning", *Nordisk Medicin* 85 (1970), no. 10: 300–301, 315–317.

63 HUA: *Promemoria concerning the Medical History Museum and Department*, attachment of the protocol of the Faculty of Medicine, 54§ (13.5.1969).

64 "Lääketiede ja käyttäytymistieteet", *Medisiinari* (1966), no. 1: 18–19.

introduced, and the overall amount of training was increased.<sup>65</sup> The decree for medical degrees (762/1975) was issued in 1975 and the repealing act on medical practice (562/1978) in 1978.<sup>66</sup> In general, the new legislation strongly emphasised the societal purpose of education. The aims of medical education were redefined, and, amongst other things, it was stated that students were to be provided with an overall picture of the concepts, theories, and methods of the history of medicine. The decree also stipulated that medical students should be given training on physicians' duties, professional ethical obligations, and their position within society. It is remarkable that history was mentioned, but this was in line with the decree for jurisprudential degrees (802/1974) that had been issued in 1974.<sup>67</sup> However, the Faculty of Law had a long tradition in teaching the history of law, so in this sense, it was not a novel idea for the time.<sup>68</sup>

It seems that some of the key people behind the decree for medical degrees wanted to promote teaching in the history of medicine. Professor Harald Teir, the chairman of the Department and Museum of the History of Medicine, appears to have been actively lobbying for the subject. In the Ministry of Education, two men possibly supported the idea. Professor of Anatomy at the University of Turku, Mikko Niemi, was Head of the Department of Higher Education from 1973 to 1979, playing a key role in the educational reform.<sup>69</sup> At Niemi's own university, there was a tradition for teaching the history of medicine, and Niemi himself was interested in history.<sup>70</sup> Permanent Secretary Jaakko Numminen had also influenced the wording of the decree. This can be deduced from a letter that Professor Teir later sent to Numminen. Teir thanked Numminen for his part in promoting the history of medicine: "With your contribution, there is a clear, positive stand on the teaching of the history of medicine in the decree for medical degrees. We are all most grateful for this." In his letter, Teir also mentioned his discussion with Mikko Niemi.<sup>71</sup> It is worth noting that when Numminen delivered a speech on behalf of the state

65 Aalto, "Ilman kollegiaalisuutta ei ole lääkäreitä." (2010): 130–131.

66 "Asetus lääketieteellisistä tutkinnoista", *Suomen Asetuskokoelma* (1975), no. 762; "Laki lääkärintoimen harjoittamisesta", *Suomen Asetuskokoelma* (1978), no. 562.

67 "Asetus oikeustieteellisistä tutkinnoista", *Suomen Asetuskokoelma* (1974), no. 802.

68 Matti Klinge, *Keisarillinen Aleksanterin Yliopisto 1808–1917* (Helsinki: Otava 1989): 338–339, 344, 462–463.

69 Jalava, *The University in the Making of the Welfare State* (2012): 116, 122, 137.

70 Niemi later wrote a short history of the development of anatomy in Finland, see Mikko Niemi, *Kuolema iloitsee pavellessaan elämää. Suomen anatomian historia 1640–1990* (Helsinki: Valtion painatuskeskus 1990).

71 HUA: MHA, Ha: 1, A letter from Harald Teir to Jaakko Numminen (15.9.1976).

in the Nordic Medical History Congress in Helsinki in 1975, he emphasised the interdisciplinary nature of medical history and its capacity to connect medicine to humanities and social sciences.<sup>72</sup> It seems that, at the Ministry of Education, history was regarded as a way of emphasising the societal aspect within medical education.

## 5 Nordic Cooperation

In the early 1970s, the history of medicine was established in all Nordic countries except Iceland, where the subject was not taught. The University of Copenhagen had the longest continuous tradition in teaching the subject, including a professor working at the medical history museum. Teaching had begun in 1874, but the format had taken different forms, from separate lectures and teaching at the museum, to introductory courses. In the 1970s, of the three Danish medical faculties, only Copenhagen offered an optional course on medical history. Teaching was not on a strong ground, but a lot of research was conducted in the field.<sup>73</sup>

In Sweden, the history of medicine had been taught in the nineteenth century, but the subject had been removed from medical education in the early twentieth century. After that, optional courses were available sporadically, for instance, at the Medical University Karolinska Institutet until 1934. In 1948, the medical history section of the Swedish Society of Medicine suggested to the state committee that was planning the reform of medical education that history should be included in the curriculum. The history of medicine was seen as a bridge between medicine and the humanities. The idea was to give students a broader perspective into medicine and increase their understanding of a physician's role in society. In 1955, the subject was, once again, added to the curriculum, but as an optional course and with very limited resources.<sup>74</sup>

72 Pakkala, "Lääketieteen historiaa ja pohjoismaista yhteistyötä" (1975): 29.

73 HUA: MHA, Ha: 1, *Lääketieteen historian opetus Pohjoismaissa* (autumn 1976); Wolfram Kock, "Undervisning och forskning i medicinens historia", *Nordisk Medicinhistorisk Årsbok* (1971): 37; Lauridsen, "Medicinens historia som universitetsämne i de nordiska länderna" (1997): 11–12.

74 Kock, "Medicinens historia i läkarutbildningen" (1953); HUA: GSA, GS-8 Kirjeenvaihto, *A letter from Wolfram Kock to Gunnar Soininen* (13.1.1955); *Läkarutbildningen. Betänkande av 1948 års läkarutbildningskommitté* (Statens offentliga utredningar 1953:7) (Stockholm 1953): 276; Kock's career, see, for example, *Vem är det. Svensk biografisk handbok 1979* (Stockholm: P.A. Norstedt & Söners förlag 1978): 554.

After this, teaching began in Gothenburg and in the Karolinska Institutet in Stockholm, where Docent Wolfram Kock started to lecture in 1958. In Lund, the teaching began in 1964, and a special Department of the History of Medicine was established in 1971. However, the teaching in Lund and Gothenburg was sporadically organised and courses were not taught every year. At the Karolinska Institutet, lectures and researcher training took place on a regular basis. Kock also occasionally gave separate lectures at the University of Umeå.<sup>75</sup> In the 1970s, his courses concentrated on the Swedish development of medicine and surgery with an emphasis on social history.<sup>76</sup> Sporadic lectures were also available at the universities of Uppsala and Linköping. The subject known as *idé- och lärdomshistoria* (history of science and ideas) had a strong tradition in the Swedish faculties of art, and included research and teaching on medical history, but medical students attended courses in other faculties only exceptionally.<sup>77</sup>

In Norway, there was a docent of the history of medicine in the early twentieth century who gave occasional lectures.<sup>78</sup> Medical history received a fresh impetus when Øivind Larsen defended a medico-historical doctoral dissertation in 1968, the first in decades.<sup>79</sup> After this, he became docent at the University of Oslo and started an optional course in 1971. There was also teaching in methodology and medical history seminars with a connection to social and preventive medicine.<sup>80</sup> At the University of Tromsø, a mandatory course was added to the curriculum in 1973 and in Bergen the following year, so that three Norwegian medical faculties out of four taught the subject at least for a while. In 1985, Larsen became the first full professor of the history of medicine in the Nordic countries. In Norway, medical history was connected to social medicine, sociology, and epidemiology.<sup>81</sup>

75 Wolfram Kock, "Medicinhistorisk krönika", *Nordisk Medicinhistorisk Årsbok* (1968): 12.

76 Wolfram Kock, "Medicinhistorisk krönika", *Nordisk Medicinhistorisk Årsbok* (1975): 7.

77 HUA: MHA, Ha: 1, *Lääkietieteen historian opetus Pohjoismaissa* (autumn 1976); Wolfram, "Undervisning och forskning i medicinens historia" (1971): 38–39; Bengt I. Lindskog, "Tillståndet i Sverige och förutsättningar för undervisning", *Svensk Medicinhistorisk Tidskrift* 1 supplement (1997): 27.

78 Øivind Larsen, "Medisinsk historie i Norge – noen kommentarer", *Svensk Medicinhistorisk Tidskrift* 1 supplement (1997): 26.

79 Kock, "Medicinhistorisk krönika" (1968): 7.

80 Øivind Larsen, "Norsk Medisinsk Historisk Forening 1970–1971", *Nordisk Medicinhistorisk Årsbok* (1971): 20–21.

81 HUA: MHA, Ha: 1, *Lääkietieteen historian opetus Pohjoismaissa* (autumn 1976); Kock, "Undervisning och forskning i medicinens historia" (1971): 36–38; Øivind Larsen, "Norsk medisinsk historisk krönike 1974", *Nordisk Medicinhistorisk Årsbok* (1974): 25–26; Larsen, "Medisinsk historie i Norge – noen kommentarer" (1997): 23–24.

When Nordic cooperation among medical historians began, one of the main themes discussed was education. The first joint meeting of Nordic medico-historical societies was held in 1967 in Gothenburg. After this, meetings took place bi-annually. The next one was organised as a congress in Oslo, where the objectives and definitions of the history of medicine as an academic discipline in the Nordic countries were discussed. The chairman of the congress, Øivind Larsen, defined the role of medical history: “Apart from its function as a historical science, providing a cultural background for the medical student in his world of sophisticated equipment and elaborate techniques, modern medical history may be a valuable supplement to the education in other disciplines, such as preventive medicine, social medicine and epidemiology.” He also thought that history had an educational task, referring to the old idea about learning from history: “Medical history shows us how problems were handled and regarded, and this may help us to avoid committing unnecessary errors if we happen to face similar problems again.”<sup>82</sup>

Most of the participants at the Nordic congresses were from Sweden and Denmark, but the number of Finnish participants grew during the 1970s. Gunnar Soinen gave presentations in Lund in 1971 and in Copenhagen in 1973. After Soinen’s death, Professor Harald Teir became particularly active in strengthening Finland’s role in Nordic cooperation. Teir was the chairman of the Nordic Medical History Congress that took place in Helsinki in 1975, and the Department of the History of Medicine was one of the main organisers. Teir was also active when Finland took the initiative to establish the Scandinavian Society for the History of Medicine. This new organisation was planned at the Helsinki congress and formally established the following year in Stockholm.<sup>83</sup> The aim of the society was to strengthen the cooperation between national societies and museums, promote research and organise congresses, as well as other educational events.<sup>84</sup>

In the field of medical education, Nordic cooperation took place within the framework of the Nordic Federation for Medical Education (Nordisk Federation för Medicinsk Undervisning, NFMU), that was established after the first Nordic medical education meeting in Helsinki in 1964.<sup>85</sup> In 1976, the NFMU and

82 Øivind Larsen, “Introduction”, *Nordisk Medicinhistorisk Årsbok supplementum II* (1969): 5–7. About the educational task of medical history, see, for example, Jones a.o., “Making the Case for History in Medical Education” (2014): 627–630.

83 HUA: MHA, Fa: 1, Harald Teir, *Drag ur medicinhistoriskt samarbete i Norden, Nordiska medicinhistoriska kongresser*; Achté, “25-vuotias Suomen Lääketieteen Historian Seura” (1986): 191; Pakkala, “Lääketieteen historiaa ja pohjoismaista yhteistyötä” (1975): 32.

84 Wolfram Kock, “Den första medicinhistoriska kongressen i Finland”, *Nordisk Medicinhistorisk Årsbok* (1975): 31.

85 Aalto, *Medisinarit, ammattiin kasvaminen ja hiljainen tieto* (2016): 237–238.

the Scandinavian Society for the History of Medicine organised a symposium on the history of medicine in medical education. The idea was to discuss the usefulness of the subject to students and physicians, its role in different Nordic universities, and what the students could learn from history. The symposium took place in Oslo, and one of the main organisers was, once again, Professor Øivind Larsen.<sup>86</sup>

After the symposium, the NFMU issued a recommendation for the teaching of the history of medicine. The aim was to help students prepare themselves for their future profession. Students had to learn to see the social and psychological sides of the doctor-patient relationship and, in this way, acquire tools for working in preventive medicine and public healthcare. Interdisciplinary education would foster humanistic and critical attitudes in future physicians. In the symposium, the content of courses in the history of medicine was discussed, and the history of diseases, folk healing, and medical practice, as well as social history and ethical questions were mentioned as essential topics. The NFMU set a target for all Nordic faculties of medicine to establish a medical history institution.<sup>87</sup>

## 6 Why and How to Teach History to Medical Students?

After the Second World War, a growing interest towards the history of ideas and sciences emerged among historians, social scientists, and natural scientists. Researchers with a background in human and social sciences were prone to stress the influence of societal factors on scientific developments, and this shift also changed the outlook of the history of medicine. The prospect extended from the development within medicine and the medical profession to the broader medical history that concentrated on the connections between medicine and healthcare and society. In the Nordic countries, the Norwegian Professor Øivind Larsen became one of the driving forces for these new ideas. He also emphasised teaching the methodology of medical history, as he found it a useful way to teach medical students how to draw conclusions and to think critically.<sup>88</sup> The recommendations of the NFMU from 1976 also placed medical

86 HUA: *Lääkietieteellisen tiedekunnan pöytäkirja*, 81§ (24.8.1976); HUA: MHA, Fa: 1, *Nordiska medicinhistoriska kongresser*.

87 HUA: *Lääkietieteellisen tiedekunnan pöytäkirja*, 2§ (2.11.1976).

88 Øivind Larsen, "Metodeproblemer i medisinsk historie", *Nordisk Medicin* 80 (1968), no. 38: 1237–1242.

history in a broader context.<sup>89</sup> This new approach had already been considered in 1971 in the Third Nordic Medical History Congress in Lund, where a panel discussion was held with both physicians and academic historians as participants.<sup>90</sup> Historians had also begun to take an interest in medical history, and the connections between physician-historians and academic historians were established. In the Nordic Medical History Congress in 1978, the Swedish Professor of the History of Ideas Sten Lindroth was one of the main speakers.<sup>91</sup>

When the research methods of history began to influence the research of the history of medicine, another trend was visible in teaching the subject. In the United States this change happened a bit earlier. Already in the 1950s and 1960s, it seemed that the history of medicine was making a breakthrough in medical curricula.<sup>92</sup> In general, adding the humanities to medical studies became an international trend. Associate Professor of the History of Medicine Guenter B. Risse from the University of Wisconsin-Madison wrote in 1975 that, behind the scenes, there was the experience of students and teachers that medical education was “a dehumanizing process”, stressing only the “scientific aspects of disease”. However, humanistic perspectives were introduced to medical students usually by adding, for instance, ethics, philosophy, and literature to the curriculum, whereas history was often seen as irrelevant. Risse spoke of the value of history and the idea of awakening medical students’ sense of perspective: the ability to relate present healthcare and working conditions to a broader context. According to Risse, history provided knowledge that contributed “to the student’s gradual professionalisation by furthering the understanding of the healer’s role relative to both individual patients and society”. Getting to know the scientific development could foster humility and sound scepticism in their work, and familiarising oneself with the changing social circumstances would help to understand political, economic, and cultural aspects of healthcare. Medical history could also provide viewpoints for ethical and philosophical questions that physicians encountered in their everyday work.<sup>93</sup>

89 Lauridsen, “Medicinens historia som universitetsämne i de nordiska länderna” (1997): 12–13.

90 Hindrik Strandberg, “Trettio år nordisk medicinhistoria 1967–1997”, *Svensk Medicinhistorisk Tidskrift* 1 supplement (1997): 46; HUA: MHA, Fa: 1, *Nordiska medicinhistoriska kongresser*.

91 HUA: MHA, Fa: 1, *Nordiska medicinhistoriska kongresser*.

92 Jones a.o., “Making the Case for History in Medical Education” (2014): 630–631; Kenneth M. Ludmerer, “The History of Medicine in Medical Education”, *Journal of the History of Medicine* 70 (2015): 656–660.

93 Risse, “The Role of Medical History in the Education of the ‘Humanist’ Physician” (1975): 458–465.

Although the humanities were seen as important for medical students, it was not obvious that the history of medicine would be the key subject, as Risse wrote. The history of medicine had to fight for scarce resources and to legitimise the teaching. The main obstacles were lack of time in the medical curricula, lack of resources, and lack of credibility in terms of the relevance of the subject. Critics observed that medical students found history irrelevant and usually did not want to spend their time studying it. One way to find a new role for medical history was to connect it with medical professionalism, for example by adding ethics to the education. However, in many medical schools in the United States, ethics came to replace the history of medicine.<sup>94</sup> In the 1970s, ethics became one of the key subjects that was required for modern medical education. Value changes, technological progress, and consumerism created new challenges for physicians, and ethics became one of the regular topics of discussion among professionals.<sup>95</sup>

The new orientation in medical history was also recognised in Finland. Professor Harald Teir was the driving force promoting these ideas. In 1978, the Nordic medical history congress was organised in Stockholm and one of the main themes was education in the history of medicine. Teir spoke about Finnish experiences. He saw that the development of technology, specialisation in medicine, the increasing role of bureaucracy, and the automatization of healthcare had displaced people as the focus of a physician's work. Teaching the history of medicine could strengthen human values. In medical ethics, it was important to teach how human values, and human rights had developed in history and how this was reflected in medicine.<sup>96</sup>

In Helsinki, attempts were made to place the history of medicine in the wider context of the humanities and especially in the history of ideas.<sup>97</sup> However, this did not necessarily mean engaging with historians. A rare example of engagement with historians was a discussion that occurred after the NFMU

94 Kock, "Undervisning och forskning i medicinens historia" (1971): 29–45; Jones a.o., "Making the Case for History in Medical Education" (2014): 624, 633–637; Ludmerer, "The History of Medicine in Medical Education" (2015): 656–660.

95 E.g. Martti Lindqvist, "Den medicinska etikens kris", *Nordisk Medicin* 88 (1973) no. 7: 195–197; Finn Bojsen-Møller, "Reformer i den medicinske grunduddannelse i Europa", *Nordisk Medicin* 88 (1973) no. 7: 218–220.

96 HUA: MHA, Fa: 1, *A memo by Martti Lindqvist and Martti Siirala* (spring 1979); HUA: MHA, Fa: 1, Harald Teir, *Drag ur medicinhistoriskt samarbete i Norden, Nordiska medicinhistoriska kongresser*; HUA: MHA, Ha: 1, Harald Teir, *Medicin-historia som akademiskt undervisningsämne – erfarenheter från Finland*.

97 HUA: Promemoria concerning the Medical History Museum and Department, attachment of the protocol of the Faculty of Medicine, 54§ (13.5.1969).

symposium in 1976. Following the NFMU recommendation to add social history to teaching, Teir discussed the topic with Professor of Social Politics Heikki Waris from the Faculty of Social Sciences. They agreed that a professor of political history could give some lectures in social history to medical students.<sup>98</sup> This plan was never put into practice, but it is interesting for two reasons, in that it was an attempt to involve academic historians in teaching, and it indicated Teir's willingness to link medical history with social change.

Jones a.o. have noted that medical historians have used the same arguments about the usefulness of the subject decade after decade in trying to make room for history in medical curricula. History has been justified by referring to the social context of medicine that future physicians need to understand.<sup>99</sup> Within the Finnish medical profession, the history of medicine was usually seen as a kind of humanistic addition to medical training, and this is how the subject was also justified. For example, in 1973, Teir suggested that the faculty add some lectures on the history of medicine to the curriculum. He argued that there was a need for the humanities in medical education because increased specialisation and lack of general education had reduced the cultural interest of physicians. Students had been enthusiastic about Teir's lectures on history and medical ethics, as well as about the museum visits that he had organised.<sup>100</sup> Compared to the early twentieth century, ideals regarding physicians had changed: they were no longer tied to classical education, and students were not automatically oriented towards culture and the humanities.

In the autumn of 1975, Teir proposed adding a mandatory course in the history of medicine to the curriculum. The idea was to give an overview of medicine in different historical periods in the context of general societal development and ideas of the natural sciences.<sup>101</sup> In the spring of 1975, the Department and Museum of the History of Medicine had organised the first optional course for 14 medical students. In addition to the lectures, there were visits to museums such as the National Museum and the Ateneum Art Museum, which indicates the broader educational aims. Students were positive, and the good

98 HUA: MHA, Fa: 1, *Keskustelu sosiaalilääketieteen liittämisestä lääketieteen historian opetuksen* (16.11.1976).

99 Jones a.o., "Making the Case for History in Medical Education" (2014): 623–652.

100 HUA: GSA, GS-7 Seurojen, yhdistysten ym. toimintaan liittyvät ja muut viralliset asiakirjat, *A letter from Harald Teir to the study committee of the Faculty of Medicine* (27.8.1973); HUA: MHA, Fa: 1 Kirjeet ja tiedotteet 1975–1979 ja 1981–1983, *A letter from Harald Teir to the study committee of the Faculty of Medicine* (20.10.1975).

101 HUA: MHA, Fa: 1, *Letters from Harald Teir to the study committee of the Faculty of Medicine* (20.10.1975).

feedback was encouraging for the department.<sup>102</sup> According to the detailed programme, the lectures began with antiquity and ancient China and India. Both the development of medicine and healthcare were discussed, and the history of dentistry, nursing, pharmacy, folk healing, and veterinary medicine were also presented. In this way, the history of medicine came to be seen as an interdisciplinary subject connecting medicine to other health sciences. The lecturers were professors of medicine, and representatives of various specialties.<sup>103</sup>

The optional course was one which students had to choose for their degree. It was organised in this format with the same programme every academic semester in 1975 and 1976.<sup>104</sup> The optional courses were popular: the number of participants was restricted, and it was not possible to accept all interested students.<sup>105</sup> In 1976, the course description emphasised that, during their education, physicians became skilful specialists who did not have enough contact with cultural issues. The course was recommended for students with these words: "Medicine and the physician must be human; the history of medicine promotes humanism in medicine."<sup>106</sup>

Besides Helsinki, Turku had a long tradition in teaching the history of medicine. Professor Osmo Järvi lectured on the subject, beginning with ancient Egypt and Babylonia and proceeding to the scientific revolution in the nineteenth century. More recent history was discussed only briefly. The emphasis was on the history of ideas and major scientific breakthroughs and the course was the only one in the Nordic countries with an exam.<sup>107</sup> At the University of Oulu (established in 1958), the Faculty of Medicine did not offer a separate course, but professors of various specialties mentioned historical developments in their lectures. At the new University of Kuopio (established in 1972), two hours of teaching in medical history were offered in a course of pathological anatomy. This lecture was given by Professor of Pathology Lauri Meurman, and it was at a general level, focussing on the major developments of medicine.<sup>108</sup>

102 Strandberg, "Medicinhistorisk krönika från Finland" (1975): 19; *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1974–1975* (Helsinki: Helsingin yliopisto 1975): 91.

103 HUA: MHA, Fa: 1, *The programme of the history of medicine course at the University of Helsinki* (spring 1975).

104 HUA: MHA, Fa: 1, *The programmes of the course in 1975–1976*.

105 HUA: MHA, Ha: 1, Harald Teir, *Medicin-historia som akademiskt undervisningsämne – erfarenheter från Finland*.

106 HUA: MHA, Fa: 1, *Course description* (spring 1976).

107 HUA: MHA, Ha: 1, *A letter from Osmo Järvi to Harald Teir* (26.8.1976); HUA: MHA, Ha: 1, *Lääketieteen historian opetus Pohjoismaissa* (autumn 1976).

108 HUA: MHA, Ha: 1, *Lääketieteen historian opetuksen neuvottelukokouksen pöytäkirja* (17.9.1976); HUA: MHA, Ha: 1, *A lecture by Lauri Meurman*.

On the initiative of the Ministry of Education, the Department of the History of Medicine in Helsinki invited all faculties to a meeting in the autumn of 1976. The purpose was to discuss the requirements of the new decree. Plenty of material was sent to the participants beforehand, including a copy of the above-mentioned article by Risse.<sup>109</sup> The starting point for the meeting was the idea that the history of medicine should be a mandatory subject for medical students. Now, all faculties were planning a separate course on the subject. In the meeting, it was determined that the aim was to provide general education for medical students. However, the introduction of these changes was hindered by a lack of a Finnish textbook that could be used as course and examination material, as well as other issues. Although it was suggested that there should be uniform requirements, no decisions were made to implement them. The ambition of having departments being established and teachers being appointed at all faculties was put in writing at the meeting.<sup>110</sup> It seems that this was the only time that the faculties actually jointly met to discuss the issue.

With the new decree, Finland became the only Nordic country with mandatory courses in medical history.<sup>111</sup> The new regulations came into effect in the autumn of 1977. In the decree, the history of medicine was connected to the theoretical basics of medical thinking and research. The faculties tried to place the discipline into that context. For example, in Turku, a course on the basics of scientific research and the history of medicine was taught in the second clinical (seventh) semester.<sup>112</sup> At the new faculty in Tampere (established in 1972), a course in the history and ethics of healthcare was introduced in the autumn of 1977. It was taught by Docent of Healthcare Ethics, Martti Lindqvist, who was a Doctor of Theology rather than a physician, so the emphasis of the teaching differed from the other faculties. The aim was to place the role of healthcare and medicine in the context of the material and mental development of society, and to present possible alternative paths and ethical problems arising from biomedical and general societal developments. The idea was also to develop the students' ethical thinking in concrete healing situations. The course was taught three times, and then converted into a course on the

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109 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 4§ (7.9.1976); HUA: MHA, Ha: 1, *Materials of the meeting concerning the teaching of the history of medicine* (17.9.1976).

110 HUA: MHA, Ha: 1, *Lääketieteen historian opetuksen neuvottelukokouksen pöytäkirja* (17.9.1976).

111 HUA: MHA, Fa: 1, *A draft of the committee report* (not dated, approx. spring 1979).

112 *Turun yliopiston lääketieteellisen tiedekunnan opinto-opas 1977–1978* (Turku: Turun yliopisto 1977): 28, 81.

historical, philosophical, and ethical principles of medicine. The emphasis was first on ethics, and then on philosophy, rather than the history of medicine.<sup>113</sup>

Other non-medical subjects that were added to the new curriculum were psychology and sociology. At the universities of Helsinki and Turku, the basics of psychology had been taught since the 1950s. The courses were not designed for future physicians, and students usually found them irrelevant.<sup>114</sup> By the 1970s, the teaching was expanded to include both basic courses and courses of medical sociology and medical psychology. The aim of this kind of teaching was defined in 1979 from a professional point of view, emphasising the need to know the physician's role in society, as well as to understand the psychological side of the doctor-patient relationship.<sup>115</sup>

## 7 Teaching the History of Medicine in Helsinki

In this section, I will examine the teaching of the history of medicine to medical students at the University of Helsinki in more detail. In the new curriculum of the autumn of 1977, the history of medicine was part of the general studies; more precisely, it was placed in the group of history of medicine, physicians' duties and ethical obligations, and the basics of medical research. The Department of the History of Medicine was responsible for these studies. The mandatory course in the history of medicine was taught in the fifth semester, which was the last pre-clinical semester.<sup>116</sup>

The teaching of it had already begun in the spring of 1977 (see figure 3.3), but the mandatory course was longer than the optional one, including 33 hours of lectures and five hours of group study, i.e. visits to the museums. The longer course made it possible to discuss the themes in more detail. It focussed on the general development of medical sciences, healthcare, and the medical profession in Finland. Most of the lecturers were professors in the medical faculty, but sciences related to medicine were also discussed by specialists, just as in the

113 HUA: MHA, Fa: 1, *Muistio terveydenhuollon historian ja etiikan opetuksesta Tampereen yliopistossa* (16.3.1977); *Tampereen yliopiston lääketieteellisen tiedekunnan opinto-opas 1977–1978* (Tampere: Tampereen yliopisto 1977), 52, 97; *1980–1981* (1980): 37, 82.

114 E.g. Lind, *Maalaispojasta kunnanlääkäriksi* (2013): 198; Maija-Liisa Paljakka, "Opiskelin lääkäriksi Paasikiven aikaan minäkin", in: Amos Pasternack, Tuula Ruokonen and Monika Ståhls-Hindsberg (eds.), *Lääkärintyön muistoja – Läkärinmenen* (Helsinki: sks/Duodecim 2006): 37.

115 *Lääketieteellisen tiedekunnan opinnot 1975–1976* (Helsinki: Helsingin yliopisto 1975): 40–44; *1976–1977* (1976): 35–40; *1977–1978* (1977): 22–26, 60; *1979–1980* (1979): 101–103.

116 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 62§ (24.5.1977); *Lääketieteellisen tiedekunnan opinnot 1976–1977* (Helsinki: Helsingin yliopisto 1976): 23; *1977–1978* (1977): 19–27, 60.



FIGURE 3.3 Harald Teir was a key character in promoting the status of the history of medicine in Finnish medical education. The subject enjoyed a brief ‘golden age’ at the University of Helsinki in the 1970s and early 1980s. Depicted is a lecture by Teir in 1977. SOURCE: HELSINKI, TIEDEMUSEO LIEKKI. PHOTOGRAPHER: HINDRIK STRANDBERG

earlier optional course.<sup>117</sup> Medical ethics was taught as part of the course. Teir described the teaching of ethics as follows: “We try to present viewpoints of professional ethics from the historical and cultural-historical perspectives with a special consideration of the general development of human dignity, as well as human rights, collegiality, and responsibility.”<sup>118</sup> The programme in the course on the history of medicine and ethics from the spring of 1979 shows that the historical element was mainly covered with the same amount of focus as earlier, along with separate lectures concentrating on the development in professional and medical ethics, as well as group discussions on actual ethical questions.<sup>119</sup>

The medical history department also took on the responsibility for organising a new introductory course to medical students, and a course on the basics of scientific methods. The first one contained mainly study guidance. There was also a panel discussion about a physician’s professional ethics, chaired by

117 HUA: MHA, Ha: 1, *Programme of the history of medicine course* (autumn 1977).

118 HUA: MHA, Ha: 1, Harald Teir, *Medicin-historia som akademiskt undervisningsämne – erfarenheter från Finland*; also “Läketieteen historian laitos ja museo”, in: *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1978–1979* (Helsinki: Helsingin yliopisto 1979): 81–82.

119 HUA: MHA, Fa: 1, *Programme of the history of medicine and ethics course and of group discussions on physicians’ ethics* (spring 1979).

Teir, and a visit to the medical history museum.<sup>120</sup> The course on the basics of medical research began in 1979 and dealt with the history and philosophy of science, and with concrete questions on how to conduct medical research.<sup>121</sup> Feedback from the first course showed that most of the students found it important for their general education, but professionally irrelevant.<sup>122</sup> With these courses, the department tried to instil more humanities into medical training. The action plan for 1978 made an impression of powerful development, and as well as new courses being introduced, research activities were also expanding.<sup>123</sup> The department participated in further education by providing content for the Finnish physicians' professional educational days (Lääkäripäivät) in 1978.<sup>124</sup>

In Helsinki, the decree on medical degrees was interpreted as an obligation to teach the history of medicine. However, the wording of the decree would have allowed other interpretations and more effortless ways of arranging the teaching. It seems that Teir in particular wanted to promote the mandatory teaching and strengthen the position of the history of medicine in this way. The establishment of the Department and Museum of the History of Medicine had been a great effort, and its existence had to be justified. As the faculty members usually emphasised a pragmatic viewpoint to medical education, there might have been a need to underline the usefulness of the department. Teir, thus, emphasised the leading role of the history of medicine as the humanistic part of medical education. Unlike medical psychology and sociology, the history of medicine was a discipline that the faculty had complete control over.

However, as a result of the reforms, new courses had been introduced that were not directly related to medical practice, and as the content of medical sciences evolved and the new curriculum seemed to be bursting at the seams, education in the social sciences and the humanities came under scrutiny.<sup>125</sup> In the autumn of 1978, the planning committee responsible for the curriculum criticised the course of the history of medicine and medical ethics. These faculty members considered the course too inconsistent and too broad, and the teaching of medical ethics poorly coordinated. The planning committee felt that the aim of the course was to provide a profound understanding of

120 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 38§ (14.12.1976); HUA: MHA, Ha: 1, *Programme of the introductory course* (spring 1978).

121 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 23§ (30.1.1979).

122 HUA: MHA, Ha: 1, *Lääketieteellisen tutkimuksen perusteet kl 1979, arvostelun yhteenveto*.

123 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 46§ (13.12.1977).

124 "Lääketieteen historian laitos ja museo", in: *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1977–1978* (Helsinki: Helsingin yliopisto 1978): 85.

125 See, for example, Kalle Achté, *Optimistisen psykiatrin muistelmat* (Porvoo/Helsinki/Juva: WSOY 1999): 217.

medicine and what it was to be a physician, and that it was not appropriate to lecture on too many historical details. They also wanted one person to deliver all the lectures.<sup>126</sup> Compared to the observations made by Jones a.o., the arguments of the planning committee seem to reflect a common attitude towards the history of medicine: history was not immediately relevant for future physicians and its position had to be legitimised in the eyes of the faculty and students.<sup>127</sup>

Unfortunately, there are no records of the discussion in the faculty proceedings, so the reaction of the Department of the History of Medicine to the criticism is unknown. However, Teir took a stand on these questions in his presentation at the Nordic Medical History Congress in Stockholm in 1978. He pondered that perhaps there had been too many teachers (12) and also too many students (90) in the course, and that the teaching had been easier when the course was optional and only for those who were truly interested in the subject matter. However, the new tasks had strengthened the role of the department.<sup>128</sup>

After discussions in a faculty meeting, a committee was set up to plan the re-organisation of the courses in the history of medicine and medical ethics. The committee was chaired by Teir, and the active members were Docent of Psychiatry Martti Siirala, and Associate Professor of Social Ethics Martti Lindqvist, who was working at the Faculty of Theology at the University of Helsinki but was also Docent at the University of Tampere. Siirala and Lindqvist emphasised practical and theoretical ethics and philosophy when planning a new, separate course on ethics, but their idea was also to add ethical thinking to all parts of medical education.<sup>129</sup> Siirala had worked at a psychiatric clinic, and he was particularly interested in the socialisation process of medical students and in the way they assumed a professional identity. For the committee, Siirala wrote that the purpose of teaching ethics should be to convey the profound idea of being a physician.<sup>130</sup>

The committee mainly discussed the organisation of ethics courses, as well as wanting to include both professional and medical ethics alongside healthcare ethics to the curriculum. The integration of the ethical dimension into

126 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 21§ (3.10.1978).

127 Jones a.o., "Making the Case for History in Medical Education" (2014) 637.

128 HUA: MHA, Ha: 1, Harald Teir, *Medicin-historia som akademiskt undervisningsämne – erfarenheter från Finland*.

129 HUA: MHA, Fa: 1, *Protocols of the committee with attachments* (30.10.1978, 20.11.1978).

130 HUA: MHA, Fa: 1, *A letter by Martti Siirala to the committee* (30.10.1978); See also, HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 33§ (17.12.1968), 6§ (7.9.1971).

clinical teaching was also important.<sup>131</sup> However, it seems that the committee was not unanimous on how much history and ethics should be included in the curriculum. Siirala and Lindqvist wanted more time for ethics, but in the drafts of the committee report, the history of medicine maintained its dominant position. It is also possible that the members had different ideas of ethics courses. Teir emphasised the role of medical history and had a practical and historical view on ethics, whereas Siirala and Lindqvist put more emphasis on theoretical, philosophical, and societal aspects.<sup>132</sup> In March 1979, the faculty established a new committee to resolve the situation. Siirala and Lindqvist were included in the new committee, but Teir was not. However, whether the committee actually met is unclear.<sup>133</sup> Meanwhile, the original committee also continued its work, but only few members participated in the last meetings. Cuts to the course on the history of medicine were suggested,<sup>134</sup> and based on this committee report, the faculty discussed the matter of teaching in May 1979, but no decisions were recorded.<sup>135</sup> It is worth noting that Teir had retired from his professorship in 1978, so he did not participate in the faculty meetings after that, although he did continue to chair the Department and Museum of the History of Medicine.<sup>136</sup>

In the academic year of 1979–1980, the course on the history of medicine was reduced to 20 hours of lectures and five hours of group study. The department was no longer responsible for the introductory course or the teaching of ethics, but during the year it still organised a course on the basics of medical research.<sup>137</sup> The introductory course was organised by the student affairs office in cooperation with teachers of medical psychology and medical sociology.<sup>138</sup> The following year, the course on the basics of medical research was organised by the planning committee, and the programme included no historical or philosophical content.<sup>139</sup> Although ethical aspects were discussed briefly in the above-mentioned courses from the viewpoint of the doctor-patient

131 HUA: MHA, Fa: 1, *Protocols of the committee with attachments* (20.11.1978, 11.12.1978); HUA: MHA, Fa: 1, *A memo by Harald Teir about the teaching of physicians' ethics*.

132 HUA: MHA, Fa: 1, *A memo by Martti Lindqvist and Martti Siirala* (spring 1979) and *drafts of the committee report* (not dated); HUA: MHA, Fa: 1, *Protocol of the committee* (19.4.1979).

133 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 23§ (27.3.1979).

134 HUA: MHA, Fa: 1, *Protocol of the committee* (19.4.1979).

135 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 65§ (29.5.1979).

136 HUA: MHA, Fa: 1, *A letter by Harald Teir to dean of the faculty Olavi Eränkö* (2.4.1982).

137 "Lääketieteen historian laitos ja museo", in: *Kertomus Helsingin yliopiston toiminnasta lukuvuonna 1979–1980* (Helsinki: Helsingin yliopisto 1980): 86.

138 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 29§ (11.12.1979).

139 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 21§ (5.2.1980).

relationship in medical psychology, psychiatry, and paediatrics,<sup>140</sup> there was no separate education in medical ethics until 1990, when the Department and Museum of the History of Medicine took on the responsibility for delivering an optional course once again. Since 1983, a short text about medical ethics was published in a study guide. Students were encouraged to follow the example of physician-teachers and to study a book on the subject independently.<sup>141</sup> In 1983, the faculty disregarded the suggestion by Professor of Psychiatry Kalle Achté about a separate course in ethics with the argument that there was no room in the curriculum. Furthermore, the faculty believed that a separate course might reduce the motivation of clinical teachers to integrate ethics into their teaching, and so the course on the basics of medical research became optional in that year.<sup>142</sup>

In the autumn of 1980, the course on the history of medicine was shortened significantly to 15 hours. In the study guide, the aim of the subject was defined for the first time, and the text was a direct quotation from the memorandum of Siirala and Linqvist from the spring of 1979.<sup>143</sup> In the course, students were to learn about the general historical development of medicine and healthcare and understand the connections between this development and the material, social and mental change processes of humanity. It was also suggested that students should learn to interpret the aims and future needs of healthcare in a historical perspective and to place their professional identity into an historical context.<sup>144</sup> The text remained throughout the 1980s. Although the course was shortened, the programme shows that the same issues were covered as before. Two museum visits were organised, one to the medical history museum, and the other to the museum for the history of veterinary medicine.<sup>145</sup>

Professor Harald Teir was a key character in promoting the status of the history of medicine in Finnish medical education. It was he who pursued the ambition to add a humanistic aspect to the curriculum.<sup>146</sup> It seems that, thanks to Teir's enthusiasm, the subject enjoyed a brief 'golden age' at the University of Helsinki. By the end of the 1970s, the Department of the History of Medicine had acquired a stronger position, but this was lost again within a few years. Perhaps

140 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 21§ (7.3.1978).

141 Matti Mäkelä, "Etiikan opiskelusta ja opiskelun etiikasta", in: *Lääketieteen opinto-opas 1983–1984* (Helsinki: Helsingin yliopisto 1983): 105; *Lääketieteen opinto-opas 1990–1992* (Helsinki: Helsingin yliopisto 1990): 17, 106.

142 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 23–24§ (3.5.1983).

143 HUA: MHA, Fa: 1, *A memo by Martti Lindqvist and Martti Siirala* (spring 1979).

144 *Lääketieteen opinto-opas 1980–1981* (Helsinki: Helsingin yliopisto 1980): 44, 59–60.

145 HUA: MHA, Ha: 1, *Programme of the history of medicine courses* (autumn 1982 and 1983).

146 See also, Achté, *Optimistisen psykiatrin muistelmat* (1999): 291.

the Faculty of Medicine was not unanimous in their position on the department, and there may have been dissatisfaction with the courses. Still, in 1981, when a working group by the Ministry of Education made proposals on future teaching posts at the universities, it was suggested that there should be an associate professor of the history of medicine at the University of Helsinki.<sup>147</sup> However, this was never fulfilled, perhaps because the faculty did not prioritise the post.

In 1982, Teir gave up his position, and Professor Kalle Achté was appointed as the new chairman of the Department, as well as the Museum of the History of Medicine.<sup>148</sup> In 1985, the course on the history of medicine became optional once again.<sup>149</sup> There was no discussion about this in the faculty meetings, but in 1986 Achté wrote in *Hippokrates*, the yearbook of the Finnish Medico-Historical Society (earlier *Amici Historiae Medicinae*), that “the faculty of medicine, alien to the humanities, made the course optional in the spring of 1985”. However, despite the downgrading of the subject, the one positive factor was that there were more enthusiastic participants in the optional course than in the mandatory one.<sup>150</sup> The number of students participating in the optional course was around ten percent of the class, varying from 10 to 30 persons, and the feedback was generally positive.<sup>151</sup>

## 8 Conclusions

Medical education has been subject to different expectations, demands, and desires from the scientific community, the medical profession, the state, and the general public. The traditional dichotomy between medicine as a science and medicine as an art has prevailed throughout the twentieth century, also in educational discussions. The characteristically biomedical emphasis has been challenged by a more holistic and humanistic viewpoint. At the beginning of the century, the demand for humanistic additions to medical education meant both classical liberal education (*Bildung*) and courses on the history of medicine flourished. When the humanistic outlook was once again in vogue in the 1960s and 1970s, this usually related to broader societal and cultural perspectives. The main argument was the need to balance the biomedically-oriented

147 Manu Jääskeläinen, “Lääketieteen uusien alojen kehittäminen”, *Suomen Lääkärilehti* 37 (1982), no. 14: 1270–1272.

148 HUA: *Lääketieteellisen tiedekunnan pöytäkirja*, 40§ (20.4.1982).

149 *Lääketieteen opinto-opas 1985–1986* (Helsinki: Helsingin yliopisto 1985): 84.

150 Achté, “25-vuotias Suomen Lääketieteen Historian Seura” (1986): 192.

151 Strandberg, “Undervisningen i medicinens historia i Finland – några reflexioner” (1994): 14.

curriculum. Implementation varied, but in the Nordic countries, the history of medicine, psychology and sociology were proactively introduced to medical students.

From the late 1960s to the early 1980s, there was enthusiasm towards the history of medicine as an academic discipline in Finland. The Finnish model of teaching the history of medicine was strongly connected to the establishment of the Department and Museum of the History of Medicine at the University of Helsinki, as well as to the development in other Nordic countries. The 1970s educational reform ended with a new decree for academic degrees, which placed a strong emphasis on society's needs in higher education. The decree mentioned the history of medicine, and in this societal context, its function was to provide students with a perspective for understanding and analysing their professional role. Additionally, the history of medicine was connected to other subjects, such as medical ethics.

The idea that the history of medicine would help to produce more humane or empathetic physicians has been questioned in the twenty-first century,<sup>152</sup> but it was one of the key arguments when the history of medicine was promoted in Finland. History was one response to the demands of the 1960s for a greater focus on societal and psychological issues in medical education. The fact that the subject was mainly taught by physician-historians themselves meant that the old classical idea of a humanistic physician was present within the teaching, although there were attempts to deal with the broader societal context as well. It seems that the teaching was aimed at developing a wider education enmeshed in the cultural knowledge and worldview of a young physician.

The history of medicine enjoyed a brief 'golden age' in Finnish medical education in the 1970s. The decree for medical degrees gave a boost for teaching that lasted for a short period, and the department in Helsinki provided the framework for that implementation. However, very quickly practical aims prevailed, and the need to make reductions to the crammed curriculum emerged. Finally, the role of the history of medicine was very much dependent on individual professors and teachers, and the University of Helsinki serves as an example of how one individual with a clear mind, ideas and a touch of idealism, can promote a whole discipline.

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152 Jones a.o., "Making the Case for History in Medical Education" (2014): 638.

# Teaching the History of Global Health

*Rachel Irwin*

## 1 Introduction

It is widely accepted that smallpox eradication was a success, with the World Health Organization (WHO) declaring the disease eradicated in 1980. By contrast, the WHO's efforts to eradicate malaria, starting in the 1950s, failed. Yet, as historian Randall M. Packard has noted, the dichotomous 'good programme' versus 'bad programme' narrative has been highly simplified.<sup>1</sup>

According to Packard, smallpox eradication succeeded, but its legacy is an overfocus on technical solutions instead of investments in primary healthcare and interventions to address the social determinants of health. That is, because of the nature of the virus, it was relatively easy to eradicate without addressing the wider social and political determinants of the disease, while addressing malaria is much more complicated. In the field of global health, this narrative of the 'good programme' has, in turn, given (ahistorical) support to more technical solutions that focus on individual diseases, rather than investing in basic healthcare and preventative measures. The history of global health is full of these types of ambiguous examples: what may appear to be an obvious policy or programmatic decision is much more complex and uncertain upon further investigation.

This chapter discusses uncertainties and ambiguities in the teaching of the history of global health. I draw upon my own experiences teaching in Sweden and Denmark to critically reflect on how the history of global health is taught, focussing on teaching context and material content. The overall aim of this teaching-in-practice chapter is to provide inspiration and examples for other lecturers, and to argue for increasing the space for historical approaches in global health education.

Global health, like public health and medicine, is not an 'objective' endeavour, rather it entails a great deal of clinical, political, economic and social uncertainty. Global health history is often overlooked but occasionally discussed in individual lectures, usually in interdisciplinary master's programmes

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1 Randall M. Packard, *A History of Global Health: Interventions into the Lives of Other Peoples* (Baltimore: Johns Hopkins University Press 2016).

within medical institutions or universities. On these courses there is a tendency to focus on individual microbes and epidemiological trends. Qualitative research, including history, takes a backseat to the quantitative; social science and humanities perspectives are often neglected. Moreover, students often have very little exposure to the basics of nineteenth- and twentieth- century history and politics.

Within this context, the history of global health is often reduced to a few dates and names, such as the founding of the World Health Organization or the eradication of smallpox. Often packaged into neat narratives, these short histories gloss over the messiness and uncertainty of lived experience. Similarly, it is difficult to make space for a discussion about the changing norms, values and assumptions which still impact global health knowledge, policy and practice today.<sup>2</sup>

The history of global health is also intricately tied to colonialism.<sup>3</sup> Yet, in many medical courses, students do rotations in low- or middle-income countries which, if poorly planned, reinforce neo-colonial thinking, such as ‘white saviour’ narratives and hierarchies between ‘developed’ and ‘developing’ countries.<sup>4</sup> Indeed, many of the gains in global health – such as medicine – were at the expense of people who were experimented upon, often without their consent or even knowledge. This historical background must be acknowledged and discussed within global health education.<sup>5</sup>

Overall, within the constraints of existing educational formats, I suggest three key messages for students (and our more biomedically oriented colleagues.) First, the topic at hand is often more complex than it seems. Many accounts of global health history have been heavily mythicized and gloss over the ambiguities and unintended consequences of the case. Second, norm-critical perspectives allow us to question dominant norms and values, particularly regarding power. Norm critique is not the same as criticism: it starts with asking why we do what we do, and then looks into the social, cultural and historical background that guide practice. Norm-critical perspectives help us to imagine

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2 Sibylle Herzig van Wees and Hampus Holmer, “Global Health beyond Geographical Boundaries: Reflections from Global Health Education”, *BMJ Global Health* 5 (2020), no. (5):e002583 and Sibylle Herzig van Wees, “We Need to Talk About Guilt in Global Health Education”, *The Lancet* 395 (2020), no. 10217: 32.

3 Packard, *A History of Global Health* (2016); Jim Downs, *Maladies of Empire. How Colonialism, Slavery and War Transformed Medicine* (Cambridge, MA: Belknap Press of Harvard University Press 2021).

4 Lotta Velin, Kim Van Daalen a.o., “Global Health Educational Trips: Ethical, Equitable, Environmental?”, *BMJ Global Health* 7 (2022), no. (4):e008497.

5 Herzig van Wees, “We Need to Talk About Guilt in Global Health Education” (2020): 32.

different pathways and solutions to global health challenges by re-evaluating the taken-for-grantedness of current practice. Norm-critical perspectives can also contribute to addressing recent social movements that highlight power and privilege, including calls for 'decolonising the classroom'.<sup>6</sup> Third, historical methods are as fundamental to global health policy and practice as more bio-medical approaches. The attention to facts, details, diverse perspectives and source material is also a transferable skill, highly sought after complicated clinical and public health practice.

In the following sections, I describe the contexts in which I teach and present arguments for teaching global health history. I then provide strategies and advice for discussing a messy and uncertain history within the constraints of existing courses. In doing so, I draw upon examples from several issue areas, including sexual health and reproductive rights (SRHR), global health data and metrics, and international (health) law and politics. These cases are particularly representative of uncertainty in global health practice but were also chosen for non-objective reasons: they are three of my research interests and favourite topics to teach.

## 2 Teaching Context

While the term 'global health' is poorly defined, it often refers to health issues that transcend national boundaries, and many definitions focus on health in low- and middle-income settings. Historically its genealogy can be traced back to public health, hygiene and tropical medicine, colonial medicine and international health.<sup>7</sup> In this way, it is traditionally taught within the context of international development. However, definitions of global health are gradually widening to address challenges that affect all countries, such as climate change. Moreover, global health should be considered as part of the wider history of medicine and public health, in that much of the content addresses both high and low-income countries.

As a caveat, I am somewhat of an interloper in history. After completing my PhD in anthropology, my research has become more historical in nature, and

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6 Rachel Irwin, "How to Take Over and Revise a Medical Ethnology Course in the Post-Everything Era", *Teaching Anthropology* 11 (2022), no. 2: 122–128.

7 Jeffery P. Koplan, Christopher T. Bond, Michael H. Merson a.o., "Towards a Common Definition of Global Health" *The Lancet* 373 (2009), no. 9679: 1993–1995; Matthias Havemann and Stefan Bösner, "Global Health as 'Umbrella Term' – A Qualitative Study among Global Health Teachers in German Medical Education", *Globalization and Health* 14 (2018), no. 32.

I spend more time sitting in archives than I do interviewing people or doing participant observation. Additionally, there have always been blurry boundaries between these two disciplines and, arguably, good ethnographic research relies on historical context.<sup>8</sup> In contemporary research, nearly all medical anthropologists and historians of global health share similar commitments to norm-critical perspectives. My research has focussed on health policy, specifically policy-making processes at the World Health Organization, the history of Swedish aid policy and domestic health policy in Sweden.<sup>9</sup> I draw on these experiences and examples in my teaching.

I primarily teach health policy and medical anthropology/ethnology in diverse, generally non-history settings, often within a biomedical context. That is, while I give occasional lectures specifically on history, many of my lectures are broader and I 'sneak' in history as much as possible. From 2014 to 2016 I taught at Karolinska Institutet and have continued to guest lecture there since, mainly on the Master in Global Health, but also on other courses. I have also given guest lectures at Uppsala University, the University of Gothenburg and the Medical Faculty at Lund University. Additionally, since 2016, I have taught at several public health and global health courses at DIS Study Abroad in both Stockholm and Copenhagen. DIS is a non-profit foundation which provides English-language programmes for students from American universities. Finally, since 2016, I have been employed in the division of ethnology at Lund University. Although historical approaches are inherent to ethnology and related disciplines, I teach many students who are new to the discipline or are only taking one or two courses in it and, at times, face some of the same challenges as I do within more biomedical settings.

Anecdotally, several challenges (and opportunities) arise from these teaching contexts. First, there is a lack of time in the classroom. For example, in a two-hour lecture on non-communicable disease, there is hardly time to cover the diseases themselves, let alone provide historical perspectives on, for example, why insulin is so expensive, or the tobacco industry's efforts to suppress research on the harms of smoking.

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8 Gilberto Hochman, Jaime Benchimol and Magali Romero Sá, "Health, Colonialism, and Development: An Interview with Historian Randall Packard", *História, Ciências, Saúde-Manguinhos* 18 (2011), no. 2: 565–583; Michael Garfield Smith, "History and Social Anthropology", *The Journal of the Royal Anthropological Institute of Great Britain and Ireland* 92 (1962), no. 1: 73–85.

9 Rachel Irwin and Richard Smith, "Rituals of Global Health: Negotiating the World Health Assembly", *Global Public Health* 14 (2019), no. 2: 161–174; Rachel Irwin, "Sweden's Engagement in Global Health: A Historical Review", *Globalization and Health* 15 (2019), no. 79.

Many classrooms are incredibly diverse, especially masters' programmes in global and public health. In the same classroom one can find a doctor from Malawi, a Swedish undergraduate student, and a pharmacist from Thailand. While there is a clear benefit in that students bring hands-on experience to class discussions, it can be very difficult to adequately tailor one's message to multiple audiences. Similarly, in many student groups there is a lack of knowledge of nineteenth- and twentieth-century history. While I started this chapter suggesting that everyone knows about smallpox eradication, this is not always the case. There is a similar lack of awareness of concepts, social movements and events which are fundamental to understanding public health practice today, such as colonialism, neoliberalism, or the Cold War: in the same classroom there can be a student from the United States who does not know what apartheid was and a student from South Africa.

Finding appropriate literature can also be challenging. Diversity is not only about country of origin: students with biomedical backgrounds are used to reading and writing lab reports, not social sciences or humanities. Students can find it challenging to adapt to the writing style or taken-for-granted historical knowledge.<sup>10</sup> Additionally, much scholarship comes from the United States and the United Kingdom and does not fully consider perspectives from other countries or non-English language source material.

Finally, although public health is interdisciplinary, in biomedical settings there can be misunderstandings about history or its usefulness. There are also many hobby historians who, at times, can reproduce the same myths and simple narratives which more rigorous research aims to critique. I take up these challenges in the following section.

### 3 Why Teach Global Health History?

In 2022 a U.S. district judge threw out a federal mask mandate for public transportation. Her decision hinged on the interpretation of the word 'sanitation' as used in the 1944 Public Health Service Act. The judge argued that 'sanitation' was synonymous with measures to 'clean' or to 'keep something clean'. Public health experts counterargued that in a historical context the term 'sanitation' should be interpreted much more broadly, as a term for various public health

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<sup>10</sup> For suggestions on course literature, see Mary Augusta Brazelton, "Teaching and Learning Guide for: Health for All? Histories of International and Global Health", *History Compass* 20 (2022), no. 1.

measures which could include mask wearing.<sup>11</sup> This is just one example of how a poor understanding of history has material consequences today.

Certainly, the history of global health is interesting and that is enough reason to teach it. There are fascinating characters and intriguing stories (even if the everyday life of people working in global health is generally far from glamorous). However, there are also more practical reasons to study global health history. Some are self-evident, as the ‘sanitation’ story demonstrates. Others may need unpacking to convince students and colleagues.<sup>12</sup> In this way, historians and anthropologists of public health also have the responsibility – and associated pressure – of being ambassadors for their disciplines, and often for qualitative research.

In teaching we should also consider the afterlife of teaching.<sup>13</sup> That is, students are not necessarily going to pursue research in history or medical humanities. We may choose instead to highlight the aspects of history – content, context and methodologies – that can benefit their future work. Many of the students I encounter go on to work in public health and development cooperation, including in non-governmental organisations or as civil servants and diplomats. Others pursue or return to clinic work. In these ‘afterlives’, at least some exposure to the history of global health and methodologies could make a difference.

In general, the arguments for including history in global health education are similar to those for including the history of medicine in medical education. History equips students and practitioners with the tools to examine changes in the burden of disease, as well as the social, political and economic contexts of medicine. It also provides tools and perspectives for analysing how and why medical knowledge changes, not least with what and in how we measure it, and what efficacy means in practice.<sup>14</sup>

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11 Joe Hernandez and Selena Simmons-Duffin, “The Judge Who Tossed Mask Mandate Misunderstood Public Health Law, Legal Experts Say”, *National Public Radio* (19.4.2022), <https://www.npr.org/sections/health-shots/2022/04/19/1093641691/mask-mandate-judge-public-health-sanitation> (accessed on 9.3.2023).

12 Sanjoy Bhattacharya, Alexander Medcalf and Aliko Ahmed, “Humanities, Criticality and Transparency: Global Health Histories and the Foundations of Inter-sectoral Partnerships for the Democratisation of Knowledge”, *Humanities and Social Sciences Communications* 7 (2020):1–11.

13 Tolu Oni, John S. Yudkin, Sharon Fonn a.o., “Global Public Health Starts at Home: Upstream Approaches to Global Health Training”, *Lancet Global Health* 7(2019), no. 3: e301–e302; Kearsley A. Stewart, “Transforming Undergraduate Global Health Education through a Humanities-Focused Curriculum”, *Pedagogy in Health Promotion* 6 (2020), no. 1.

14 David S. Jones, Jeremy A. Green, Jacalyn Duffin and John Harley Warner, “Making the Case of History in Medical Education”, *Journal of the History of Medicine and Allied Sciences* 70 (2015): 623–652.

There are myriad examples of global health interventions that failed because they ignored history, and historical research has been underused in development cooperation and humanitarian aid, with consequences for contemporary health policy and practice.<sup>15</sup> Policy decisions taken today are often based on superficial analyses of the past. Furthermore, the histories of global health and international development are often based on official sources, such as those of institutions or governments; these are not always honest or critical. As medical historian Randall Packard noted in the *Bulletin of the WHO*:

My work with international health professionals made me aware that they tend to produce histories that explain why various policies were chosen, and why they succeeded or failed. These histories tend to validate their work. They tend to ignore the messiness of history and the role that political and economic factors play in shaping policy decisions and determining whether programmes succeed or fail.<sup>16</sup>

Similarly, and writing of international development specifically, Michael Woolcock and colleagues write that:

Without the explicit input of critical and reflexive professional historians, the ‘history’ which policy-makers use is likely to be naive, simplistic, and implicit, often derived from unconscious assumptions or vague memories; as such it is likely to be highly selective, used to suit predetermined purposes, and to be largely unverified.<sup>17</sup>

That is, historical approaches cannot be reduced to “lessons learnt”, and the risk of giving little time to history is that complex situations become reduced

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15 Fiona Fleck, “Randall Packard: Learning to Learn from Global Health History (Interview)”, *The Bulletin of the World Health Organization* 96 (2018): 231–232; Sally Sheard, “History Matters: The Critical Contribution of Historical Analysis to Contemporary Health Policy and Health Care”, *Health Care Analysis* 26 (2018): 140–154; Uma Kothari, “History, Time and Temporality in Development Discourse”, in: C.A. Bayly, Vijayendra Rao, Simon Szreter and Michael Woolcock (eds.), *History, Historians and Development Policy: A Necessary Dialogue* (Manchester: University Press 2011): 65–74; Michael Woolcock, Simon Szreter and Vijayendra Rao, “How and Why Does History Matter for Development Policy?”, *Journal of Development Studies* 47 (2011), no. 1: 70–96.

16 Fleck, “Randall Packard (Interview)” (2018): 231–232.

17 Woolcock a.o., “How and Why Does History Matter for Development Policy?” (2011): 70–96.

to anecdotes which, in turn, often become mythicized – which both Packard and Woolcock warn against. Rather, there is a need for reflexive and critical examination of dominant narratives about how development works, and a need to better understand the wider political and economic contexts in which global health decisions have been taken.<sup>18</sup> Narratives are stories based not only on historical ‘fact’ but also on norms, identities and worldviews.<sup>19</sup> They set out and reinforce causal relationships about what works or does not work in global health and development, often underpinned by various ideologies. This is not to suggest that narratives are necessarily misleading, but they can be distorted or adopted by different actors. Dominant narratives can also reinforce hierarchies and inequality and may focus on the positive while neglecting the negative.<sup>20</sup> That is, the economic success of high-income countries can neglect the fact that wealth was built from slavery, colonialism and other types of exploitation.<sup>21</sup> Sanitised narratives avoid the messiness and ambiguity of what really happened. Overall, historical perspectives provide nuance, analysis and counterbalance to narratives about why things are the way they are, or what works in global health practice.

As already alluded to, incorporating historical approaches into global health teaching is also an integral step in decolonising classrooms. In this context, ‘decolonising’ is complicated and there are ambiguities and disagreements about what it means in practice.<sup>22</sup> It is also related to wider social movements which call for more attention to power and privilege.<sup>23</sup> At a bare minimum, decolonisation and related social movements call for a discussion of global health’s colonial legacy and its relation to politics and power today, something that is often neglected in global health education. This can include content on

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18 Fleck, “Randall Packard (Interview)” (2018): 231–232.

19 Nilima Gulrajani, *Development Narratives in a Post-Aid Era*. WIDER Working Paper 2022/149 (London: ODI 2022); Amrita Narlikar, *Poverty Narratives and Power Paradoxes in International Trade Negotiations and Beyond* (Cambridge: University Press 2020).

20 Kothari, “History, Time and Temporality in Development Discourse” (2011): 65–74.

21 Woolcock a.o., “How and Why Does History Matter for Development Policy?” (2011): 70–96.

22 Sudipta Saha, Purvaja Kavattur and Amina Goheer, “The C-Word: Tackling the Enduring Legacy of Colonialism in Global Health”, *Health Systems Global Blog* (26.4.2019), <https://healthsystemsglobal.org/news/the-c-word-tackling-the-enduring-legacy-of-colonialism-in-global-health/> (accessed on 13.3.2023).

23 Salla Atkins, Anaya Tina Banerjee, Kathleen Bachynski a.o., “Using the Covid-19 Pandemic to Reimagine Global Health Teaching in High-Income Countries”, *BMJ Global Health* 6 (2021), no. (4):e005649; Irwin, “How to Take Over and Revise a Medical Ethnology Course in the Post-Everything Era” (2022): 122–128.

racism, wider determinants of health, politics, economics, globalisation and trade.<sup>24</sup>

For example, in the Swedish context, David Nilsson and Sverker Sörlin argue for re-examining historical narratives about Sweden as a ‘good’ country and as a ‘utopia’. That is, there is a national mythology based on Sweden as a country without a (international) colonial past and on Sweden’s rapid transition from one of the poorest in Europe to a modern welfare state.<sup>25</sup> Both views have a basis in reality but are not entirely accurate. Sweden benefitted from colonialism through its relationship with other countries and, accordingly, had an interest in maintaining the status quo: that is, the suppressive and exploitative practices of colonialism.<sup>26</sup> Yet, the ‘good’ Sweden narrative continues to affect aid policy today.

‘Decolonising classrooms and curricula’ also involves taking a broader norm-critical perspective and questioning the assumptions and knowledges underpinning practice and the taken-for-grantedness of daily life.<sup>27</sup> It recognises that knowledge is inherently political and invites us to question norms around identities (class, race, ethnicity, religion, etc), what is normal or deviant, and how norms have changed over time. Norm critique is inherently tied to power: notions of right or wrong, or whether the best courses of action are not neutral, but are based on ideologies and existing power structures. Overall, the challenges faced by health systems and public health today cannot be addressed without understanding the norm-context in which they have developed.

Finally, much of science is about managing and mitigating uncertainty,<sup>28</sup> and historical perspectives contribute to increasing comfort over uncertainty and ambiguity. Certainly, policy making is a messy business and there are rarely ‘right’ or ‘wrong’ courses of action. Sudeepa Abeysinghe makes this point

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24 Herzig van Wees, “We Need to Talk About Guilt in Global Health Education” (2020): 32; Hoda Sayegh, Christina Harden, Hijab Khan a.o., “Global Health Education in High-Income Countries: Confronting Coloniality and Power Asymmetry”, *BMJ Global Health* 7 (2022), no: (5):e008501; Oni a.o., “Global Public Health Starts at Home” (2019): e301-e302.

25 David Nilsson and Sverker Sörlin, *Research and Aid Revisited – A Historically Grounded Analysis of Future Prospects and Policy Options* (Stockholm: Expert Group for Aid Studies (EBA) 2017).

26 Magdalena Naum and Jonas M. Nordin (eds.), *Scandinavian Colonialism and the Rise of Modernity. Small Time Agents in a Global Arena* (New York: Springer 2013).

27 Michel Foucault, “What is Critique?”, in: Sylvère Lotringer (ed.), *The Politics of Truth* (Cambridge, MA: MIT Press 2007): 41–82.

28 Eve Manz and Enrique Suárez, “Supporting Teachers to Negotiate Uncertainty for Science, Students and Teaching”, *Science Education* 102 (2018), no. 4: 771–795.

regarding pandemics and institutional decision-making.<sup>29</sup> There is complexity inherent around managing an ever-changing knowledge base, as was evident in the Covid-19 pandemic, when many authorities were forced to set a policy in the absence of definitive knowledge about virulency and the spread of the disease. There are also uncertainties around institutional roles and responsibilities, as public health is generally the purvey of multiple agencies at multiple levels of government.

Clinical practice can also be uncertain, which can be uncomfortable for medical students, especially when there is not one right answer.<sup>30</sup> Students need the complex reasoning and critical thinking skills to think through diagnoses and courses of treatment. History provides critical perspectives on the contingency of knowledge production and circulation, fostering a clinician's ability to tolerate ambiguity and make decisions when there is a lack of complete knowledge.<sup>31</sup> Methodologically, it provides a framework for analysing primary and secondary sources, and for simultaneously accepting multiple interpretations of what happened. As historians Woolcock and colleagues point out:

Being a historian is not just a matter of 'knowing more' about a particular time, place or issue than others, but acquiring an entire sensibility about how to compile, assess and interpret evidence, substantiate causal claims, and understand complex (often interdependent) processes.<sup>32</sup>

While few of my students will go on to study history or related processes, my goal is that they can at least have a broad understanding and respect for the historian's 'sensibilities' as they move forward with their careers in global health and development cooperation. The embrace of uncertainty also lends itself to a much-needed humility in global health – to accept that what may have been right 50 years ago may not be the best course of action today, or to acknowledge how past mistakes reverberate into the future.

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29 Sudeepa Abeyasinghe, "Global Health Governance and Pandemics: Uncertainty and Institutional Decision-Making", in: Kristian Bjørkdahl and Benedicte Carlsen (eds.), *Pandemics, Publics, and Politics. Staging Responses to Public Health Crises* (Berlin: Springer 2018): 11–28.

30 Emily E. Witt, Sarah E. Onorato and Richard M. Schwartzstein, "Medical Students and the Driver for a Single Right Answer: Teaching Complexity and Uncertainty", *ATS Scholar* 3 (2021), no. 1: 27–37.

31 Jones a.o., "Making the Case of History in Medical Education" (2015): 623–652.

32 Woolcock a.o., "How and Why Does History Matter for Development Policy?" (2011): 70–96.

#### 4 Examples from Teaching Uncertainty and History in Global Health

There are several ways to approach teaching the history of global health. A chronological approach may be obvious, but it is also boring and risks reproducing old narratives. That is, to begin a lecture with “The WHO was founded after the Second World War ... ,” glosses over debates around its founding, as well as the challenges of absorbing the League of Nations Health Organisation and the Office International d’Hygiène Publique into the discussion. It also turns a complex and interesting story into a boring statement. Similarly, lectures on international health or humanitarian law risk simply listing agreements and their main content. While it is important to remember names and dates, these can be overwhelming and dull without the stories behind them.

By contrast, I advocate for the thematic approach. A good example is Jacalyn Duffin’s book *History of Medicine: A Scandalously Short Introduction*.<sup>33</sup> Aimed at medical students, it goes through the historical aspects of various themes, such as obstetrics, surgery and pharmacology. Again, as most of my teaching is in non-history settings, the thematic approach makes it easier to ‘sneak’ history into, for example, lectures about accidents and injuries, abortion, or health economics.

In these cases, a norm-critical approach can start by looking at the current policy and statistics on a global health issue and then – focussing on power and knowledge – highlight historical aspects. Complementary to this are case studies. For example, lectures on alcohol control can look not only at the burden of disease today, but it can also examine both the role of alcohol producers in watering down legislation, as well as the paternalism that has historically characterised policy and law in different jurisdictions. In Sweden for instance, during alcohol rationing (1919–1955), the amount of alcohol one could purchase was discriminatory, as it was based on age, gender and social standing – with the idea that the state needed to intervene on behalf of those deemed not fit to make decisions about consumption.

One can also draw upon the students’ own viewpoints and life experiences. Although few of them have actually read the book, in secondary school many of my American students were exposed to Upton Sinclair’s novel *The Jungle* (1906). Based on real experiences, the novel documents the dangerous and unsanitary conditions in the US meatpacking industry through the story of Lithuanian immigrants to Chicago during the turn of the twentieth century.

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33 Jacalyn Duffin, *History of Medicine: A Scandalously Short Introduction*. (Toronto: University Press 2021).

Specifically, the book brings up issues of injuries, labour rights and tenement housing, and invites discussion on power and politics. *The Jungle* offers a good starting point for discussing the social determinants of health, whilst drawing upon a historical case study with which students may already be familiar.

Finally, I advocate discussing methods. When I present my own research, I talk about how I know what I know. It can be as simple as bringing up something strange I found in an archive – and then discussing what an archive is and what kind of documents are chosen for inclusion or exclusion. I also introduce some of the challenges of oral histories, such as how to handle multiple, and sometimes conflicting, accounts of the same event or situation.

In the sections that follow, I discuss my experiences weaving historical and norm-critical approaches into lectures on several topics: sexual and reproductive health, global health data and metrics, and international law. This is not a comprehensive list of ideas, but the topics do offer some suggestions for classroom context and activities. In many of these examples, I draw upon my own research and invite the readers to consider how they can draw upon their own. Again, these classrooms are rarely settings focussed on history, so it is not always necessary or appropriate to cover everything – the main goals are (1) to spark interest in and respect for history and historical approaches – including norm critique – and (2) to encourage students to embrace uncertainty and ambiguity.

#### 4.1 *Sexual and Reproductive Health*

In 2022, the US Supreme Court overturned *Roe v. Wade*, the 1973 ruling which set out the constitutional right to abortion. Many of my American students were upset in the aftermath of the decision and wanted to discuss this in the context of women's rights. Also, in many global health master's programmes there are students from countries where abortion is illegal and understand the public health ramifications of such laws. Most students see access to abortion as positive and believe it to be both a public health issue and an often-complicated personal decision. However, many are surprised when I suggest that access to abortion is not always a good thing – drawing upon the history of forced abortions and sterilisations in Sweden and many other settings. This, in turn, leads to a discussion on contraceptives and unethical experimentation.

For example, few students realise that the development and roll out of contraception in low-income countries in the mid-twentieth century was a direct response to concerns in high-income countries over population growth. Settings such as India and Puerto Rico were essentially used as laboratories for

experimentation without the consent of the population.<sup>34</sup> In Sweden, between 1935 and 1975, 63,000 individuals were sterilised without their consent and, at times, in combination with a forced abortion. Individuals with intellectual disabilities, as well as ethnic groups such as the Roma, were particularly targeted, as were ‘poor’ women.<sup>35</sup> Most Swedish students are generally aware of this history of forced abortion and sterilization in Sweden, but this history needs repeating, and it needs discussion on how we debate reproductive rights today.

Sexual and reproductive health also invites discussion on gender norms. An excellent source for classroom material is the National Institutes of Health’s National Library of Medicine (NIH/NLM) in the US, which has a Film & Video collection offering historical public health films on an array of topics.<sup>36</sup> This includes films on ‘venereal diseases’ targeted toward US servicemen and women during and after World War II. The 1947 film “Easy to get” starts with a parable of an African American serviceman who contracts syphilis during furlough. I ask students to watch the film and think about the norms, values and stigma involved: how African American servicemen are treated differently from their white counterparts, and the gender norms inherent in the film: when the African American serviceman is shocked to discover he has contracted syphilis, the white doctor responds by accusing the serviceman of being with a “dirty woman”. I ask students to watch the film before class and provide them with space in class to discuss the film.

Both examples invite a discussion of ambiguity and complexity. Sexual health and reproductive rights are not simply about improving access to safe abortion or contraceptives. Rather, these rights should be understood in a context where some women’s rights were trampled on at the expense of others. Similarly, preventing disease is generally a good thing, but is rife with stigma which can, in turn, exacerbate problems – as can be extrapolated from the film “Easy to Get”, along with others in the NIH/NLM’s collection.

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34 Laura Briggs, *Reproducing Empire: Race, Sex, Science and U.S. Imperialism in Puerto Rico* (Berkeley: University of California Press 2002); Packard, *A History of Global Health* (2016).

35 *Den mörka och okända historien. Vitbok om övergrepp och kränkningar av romer under 1900-talet* (Stockholm: Regeringskansliet, Arbetsmarknadsdepartementet 2014); Dan Östberg, “Staten tvingade mig att göra abort”, *Aftonbladet* (1.4.2008), <https://www.aftonbladet.se/relationer/a/4dOm5G/staten-tvingade-mig-att-gora-abort> (accessed on 23.3.2023).

36 National Institutes of Health, National Library of Medicine, *Collections: films and videos*, <https://www.nlm.nih.gov/hmd/collections/films.html> (accessed on 19.3.2023).

#### 4.2 *Global Health Data and Metrics*

Much of global health practice is based on data: statistics shape our worldview and are tools for political action and funding decisions.<sup>37</sup> Metrics are often reported as neutral facts and are assumed to be created by expert knowledge, however, there are a number of norms, values and assumptions inherent in the entire process, from the creation of data collection tools to the development of databases and reporting.<sup>38</sup> Many global health courses focus on using and discussing data metrics, without actually going into the history of why we measure what we measure and how. A clear exception are individual modules on health economics – but often the focus is on performing calculations, not the history or social norms imbedded in the metrics concerned.

A good example of this is the DALY, or disability- adjusted life year, which is a combined measure of mortality and morbidity. The DALY was introduced in the World Bank's 1993 World Development report and is the standard global metric used in cost-effectiveness analyses, used to make decisions on such matters as whether to provide a new cancer drug or to fund a public health intervention. While many of my students use DALYS, they rarely understand how they are calculated and how this has changed over time (again the exception are students specialising in health economics). As Ariel Chen and colleagues write:

One limitation of the DALY is that the method is so complicated and the models require so many inputs about population-specific age structures, life expectancies, incidence, prevalence, and other metrics that it is difficult [to use] ... the changes to the DALY over the years have decidedly not made the metric significantly less cumbersome to use.<sup>39</sup>

That is, metrics are complicated and have their own social lives. To simply state that a certain disease is responsible for a certain number of DALYS ignores the complexities of data handling, including how uncertainty is managed. It also ignores the fact the DALY was created in a wider social context in the late 1980s

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37 While not about history per se, the BBC's radio programme/podcast *More or Less* is an excellent addition to class material. The programme unpacks statistical claims and discusses the complexities in how numbers are used and abused.

38 For a discussion of the literature on metrics, see also Rachel Irwin, "Imagining the Post-antibiotic Future: The Visual Culture of a Global Health Threat", *Medical Humanities* 48 (2022): 371–380.

39 Ariel Chen, Kathryn H. Jacobsen, Ashish A. Deshmukh and Scott B. Cantor, "The Evolution of the Disability-Adjusted Life Year", *Socio-Economic Planning Sciences* 49 (2015): 10–15.

and early 1990s: the World Bank and World Health Organization were both competitors and collaborators for legitimacy in global health, and the creation and management of the DALY metric is part of this wider story. This was also an era in which neoliberal ideologies were gaining traction (and to some extent dominance) in global health. For example, DALYS used to be calculated with age-weighting so that disability or disease during one's 'productive years' was weighted more than during childhood or after retirement. In fact, I would suggest that metrics, such as DALYS, raise much bigger questions around how life is valued and narratives about the relationship between health and the economy.<sup>40</sup>

With regard to statistics, a specific Swedish problem – but also advantage – is that many of the students were introduced to the Gapminder Foundation at a young age. Gapminder was founded in 2005 by Ola Rosling, Anna Rosling Rönlund, and the late Hans Rosling. While the foundation's work has developed over time, its main mission is "to fight devastating ignorance with a fact-based worldview everyone can understand". According to its mission statement, the foundation does this through "[identifying] systematic misconceptions about important global trends and proportions and [using] reliable data to develop easy to understand teaching materials to rid people of their misconceptions".<sup>41</sup> It also serves to make data and statistics more readily available. This is in many ways a noble mission and a wonderful legacy of Gapminder, and the work of Hans Rosling, specifically, is that this enthusiasm has inspired many individuals to study global health and development. However, the perspective which underpins Gapminder is that the world is getting better – a view that it promotes through TED and similar popular science talks and books. In many ways this is undisputable: in most contexts, rough metrics like life expectancy and maternal mortality have drastically improved over the last century. Yet, a more nuanced look at lived experience show that 'improvement' has subjective aspects, and is experienced differently depending on class, nationality, race, ethnicity, gender and other markers of identity. The reproduction of the 'science as progress' narrative also ignores the various power relations which underpin global health.

For example, I was a participant at the Swedish Global Health Research Conference in Stockholm in April 2018. After a Gapminder presentation by Ola Rosling, a medical student asked something along the lines of how we could take money and direction from companies which directly and indirectly contribute to poor health. My PhD research was about transnational food and beverage

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40 Rachel Irwin, "Economic Thinking in Global Health: A Historical Overview", *Socialmedicinsk tidskrift* 98 (2021), no. 2: 222–234.

41 Gapminder, *About Us*, <https://www.gapminder.org/about/> (accessed on 25.8.2024).

companies, so I saw it as a sensible and uncontroversial question regarding the role of the private sector in global health. Indeed, there is an extensive body of literature on how various industries and companies have contributed to global health challenges and influenced policy options, with examples ranging from clear-cut ones such as the tobacco industry, to the more complex and ambiguous roles of pharmaceutical and food industries, as well as philanthrocapitalist families, from the Rockefellers to the Gates.<sup>42</sup>

While I forget the exact wording of the student's question, Ola Roslings response remains clear in my mind: He immediately attacked the premise of the student's question, berating her to the extent that she started crying. His response was that "look at my data and you'll see that you're wrong. Look at my data."

That is, while Gapminder promotes what it describes as a "fact-based worldview", it often glosses over the challenges of collecting data, not least the political, social and economic norms inherent in global health metrics. Moreover, its grand narrative that the world is getting better is contingent on one's perspective and lived experience. That is, gains in health and living conditions are unequally and inequitably distributed across populations. Gapminder is also uncritical of the role of the private sector in health, not least because one of its donors is the Bill and Melinda Gates Foundation. Many students I have encountered (and even colleagues) have – in part via exposure to Gapminder – internalized "simplistic ideas of unchallenged and uncomplicated progress" in the history of global health.<sup>43</sup>

Collecting, managing and using data and metrics is a significant skill in global health. Yet, these are inherently imperfect representations, with uncertainty and ambiguity in all stages of data handling. Historical approaches can help us to understand why we measure what we measure and how methods for measurement have adapted over time. They help us to critically assess older statistics and point out why historical comparisons are often based on missing information. Furthermore, a norm-critical perspective asks about the relationship between knowledge and power: why we measure what we do, what biases are inherent in our current measurement tools, and how are the resulting (and imperfect) statistics used or misused? By focussing on the bigger questions, one can 'sneak' history into lectures on statistics and health economics, and

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42 Anne-Emanuelle Birn, "Philanthrocapitalism, Past and Present: The Rockefeller Foundation, the Gates Foundation, and the Setting(s) of the International/Global Health Agenda", *Hypothesis* 12 (2014), no. 1: 1–27; Jocalyn Clark and Linsey McGoey, "The Black Box Warning on Philanthrocapitalism", *The Lancet* 388 (2016), no. 10059: 2457–2459.

43 Bhattacharya a.o., "Humanities, Criticality and Transparency" (2020): 1–11.

into any lecture in which key metrics take centre stage, such as DALYS, gross domestic product, maternal mortality, and others.

### 4.3 *International Health Law and Politics*

In 2022 and 2023, inflation in many parts of the world affected the cost of infant formula. Reports from the United Kingdom focussed on strict guidelines preventing retailing from discounting formula or food banks from giving it out.<sup>44</sup> The story behind this is the WHO/UNICEF International Code of Marketing of Breastmilk Substitutes, adopted in 1981.<sup>45</sup> The Breastmilk Code's genesis dates back to the late 1960s when doctors in low-income settings were treating malnourished babies, caused in part by the unethical marketing of breastmilk substitutes, including infant formula. Infamously, companies sent representatives to hospitals wearing white coats (to look like physicians), giving women free samples and pushing formula as being the 'modern' or superior equivalent to breastmilk. The main problem in low-income settings is that formula could be mixed with unclean water and/or watered down to last longer – in both cases leading to malnutrition and disease. (Indeed, some students do have a vague understanding that they 'should' boycott the Swiss multinational company Nestlé – a major formula producer –, but they do not know the history behind this).

The Breastmilk Code – and the associated social movements around it – have two, somewhat, opposing legacies. On the one hand, the Code emphasises the importance of breastfeeding and has led to national legislation protecting and supporting the practice, such as prohibitions on marketing formula or paid maternity leave. It also set a precedent for public health action in opposition to multinational companies. On the other hand, many women are unable to exclusively breastfeed for various reasons and experience stigma if they formula feed. While formula is literally a lifeline for these babies, in most countries, formula cannot be given out or discounted – because of national legislation derived from the Code. Certainly, the civil servants, diplomats and civil society groups that contributed to the Code in the late 1970s and early 1980s did not anticipate the pressures of inflation some forty years later.

The pitfall of discussing international law in health is to simply list a series of declarations and binding and non-binding agreements, with a brief description of their content. However, international agreement – like the Breastmilk

44 Rhiannon Lucy Cosslett, "When Parents Are Struggling to Feed Their Babies, Why Don't All Food Banks Offer Formula?", *The Guardian (UK)* (13.12.2022), <https://www.theguardian.com/commentisfree/2022/dec/13/parents-are-struggling-to-feed-their-babies-food-banks-must-offer-formula> (accessed on 9.3.2023).

45 Irwin and Smith, "Rituals of Global Health" (2019): 161–174.

Code – has a story behind it, which tells us something about power, norms and values, as well as unintended consequences.

There are many examples of international law in health, including The Framework Convention on Tobacco Control (FCTC), The International Health Regulations (2005) and the various health-related sections of the Geneva Conventions and Additional Protocols. This approach to international agreements also fits under the rubrics of ‘global health politics’ or ‘global health diplomacy’, offering students case studies to examine the messiness of drafting and adopting international agreements. Lecture content can include the challenges of how evidence is considered in policy-making and the nitty-gritty of how civil servants and diplomats use language. Most cases also offer insight into different and competing interests. Indeed, many agreements in health ultimately involve tensions between private sector, civil society and governmental actors, or between high-income and low-income countries; the latter cases raise questions of colonialism and post-colonialism in policy making.

Because there is some sort of international agreement for most health issues, a consideration of an agreement’s lineage is relatively easy to ‘sneak’ into non-history lectures. For example, geographers Tim Brown and Morag Bell have traced the ‘genealogy’ of the WHO’s Global Strategy on Diet, Physical Activity and Health.<sup>46</sup> Similarly, anthropologist Saida Hodžić has examined the drafting of the 2006 report of the WHO Study Group on Female Genital Mutilation and Obstetric Outcome.<sup>47</sup> Certainly, much of the literature on international agreements comes from individuals who were involved in their creation, giving rise to accounts that are inherently biased, and this mirrors Packard’s warning over accounts that validate official histories. However, these types of accounts invite discussion over source material and perspective – offering a starting point for discussing historical methods. Similarly, I have spent much time at the WHO’s Archives in Geneva, looking at source material around the Breastmilk Code, I also use this as an example to discuss archives and archival methods.

## 5 Discussion and Conclusions

Uncertainty and ambiguity exist at all levels of global health policy and practice. Policy and programmatic choices – and the social norms which guide

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46 Tim Brown and Morag Bell, “Imperial or Postcolonial Governance? Dissecting the Genealogy of a Global Public Health Strategy”, *Social Science & Medicine* 67 (2008), no. 10: 1571–1579.

47 Saida Hodžić, “Ascertainingly Deadly Harms: Aesthetics and Politics of Global Evidence”, *Cultural Anthropology* 28 (2013), no. 1: 86–109.

them – from the past reverberate well into the future, from the rising cost of infant formula to the ways in which statistics can be used and misused to justify various decisions. Approaches from history can help to understand and manage the complexities of global health practice today. For this reason, the teaching of history should be an integral part of global health education, and – particularly in biomedical settings – we need to convince both students and colleagues that the social and political context of health is just as important as the biological/epidemiological.

However, history is rarely prioritized in interdisciplinary global health programmes. While I advocate for increasing space for history, I am also pragmatic: many education programmes and modules are already saturated with material and topics, and it can be administratively difficult to change syllabi and course plans. Two more realistic strategies are to hold a single lecture or module on history or to ‘sneak’ historical perspectives into existing lectures. In both cases, there are three messages we should strive to share in interdisciplinary spaces.

First, the topic at hand is more complex than it appears. There are rarely easy policy or programmatic solutions, and historical research demonstrates the pitfalls of unintended consequences. Historical research also demonstrates how certain narratives can become dominant and, often, neglect messy, ambiguous realities. These (flawed) narratives in turn, drive and support policy decisions.

Second, take a norm-critical perspective. This entails going beyond names and dates and taking approaches from social history, anthropology and related disciplines to examine how global health politics and practice is the product of cultural, social and historical factors, often underpinned by power. This is inherent in many social science and humanities courses – but is often glossed over in more biomedically-oriented programmes. A norm-critical approach naturally leads to discussions around the colonial, post-colonial and de-colonised classrooms. It also reminds students that the benefits – and harms – of global health practice have not been shared equally by various groups of people. Beyond this, norm-critical perspectives inspire us to challenge conventional wisdom and narratives about what does or does not work and, in turn, to think differently and innovatively about current challenges.

Third, make space for a discussion of research methods. At a basic level, the attention to detail and primary sources is a transferable skill, as is how historians handle issues of bias, representativeness and perspective. Beyond this, historical approaches can help students handle uncertainty and ambiguity when there are few ‘right’ answers. For example, questions such as “is the world getting better?” or “is aid effective” are issues to explore, not to definitively answer.

Finally, aside from its usefulness, history is interesting and (hopefully) most of us are passionate about our research. That is ultimately the most important message: bring enthusiasm for history and its approaches, content and methodologies will stick with students, regardless of what they go on to do after your course or lecture.

### **Acknowledgements**

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**PART 2**

*Case Studies of Various Kinds of Uncertainty  
in the History of Medicine*



# Sensation or Science: Patients, Professionals and Medical Tourism in Nineteenth-Century Madeira

*Virginia Langum*

## 1 Introduction

During the covid pandemic, many wealthy urban dwellers were able to work in their own office at home or travel to summer homes or resorts, whereas others with fewer means had to tough it out in cramped apartments or had to venture out to work. The comparison was made to Boccaccio's *Decameron*, where wealthy Florentines escape the deathly miasma of the city.<sup>1</sup> Travel as escape from or cure for disease is an ancient phenomenon, and the connection of health travel to wealth and privilege also spans time.<sup>2</sup> From the Hippocratic tradition of airs, waters and places, climates were thought to imbue people with certain physical, mental and emotional characteristics. Moving climates could also impact physical, mental and emotional well-being for good or ill.<sup>3</sup> Such ideas persisted well into the eighteenth and nineteenth centuries.<sup>4</sup> Furthermore, acclimatization, or how bodies and minds adapt to foreign climates, became of great interest as Europeans were expanding into territories

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- 1 Kathryn McKinley, "How the Rich Reacted to the Bubonic Plague Has Eerie Similarities to Today's Pandemic", *The Conversation* (2020), <https://theconversation.com/how-the-rich-reacted-to-the-bubonic-plague-has-eerie-similarities-to-todays-pandemic-135925> (accessed on 30.1.2024). See also, Virginia Langum and Terry Walker, "The Medical Humanities, Literature and Language", *Nordic Journal of English Studies* 21 (2022), no. 2: 1–7.
  - 2 For an historical overview of health-related travel, see Simon M. Kevan, "Quests for Cures: A History of Tourism for Climate and Health", *International Journal of Biometeorology* 37 (1993): 113–124.
  - 3 Clarence Glacken, *Traces on the Rhodian Shore: Nature and Culture in Western Thought from Ancient Times to the End of the Eighteenth Century* (Berkeley: University of California Press 1967); Virginia Langum, "Cold Characters: Northern Temperament in the Premodern Imaginary", in: Dolly Jørgensen and Virginia Langum (eds.), *Visions of the North in Premodern Europe* (Turnhout: Brepols 2018): 123–144.
  - 4 On the enduring legacy of this tradition, see Alison Bashford and Sarah W. Tracy, "Introduction: Modern Airs, Waters, and Places", *Bulletin of the History of Medicine* 86 (2012), no. 4: 495–514.

associated with negative physical, mental and moral health.<sup>5</sup> Within Europe, particular regions were associated with healthfulness depending on the medical condition.<sup>6</sup>

In the first half of the nineteenth century, the Portuguese island of Madeira was a major health destination for those suffering from pulmonary tuberculosis, or what was then known as consumption. One journalist described the island as “the sheet anchor, the grand specific, for persons afflicted with pulmonary afflictions”.<sup>7</sup> Death notices of consumptive invalids in Madeira occurred regularly in British newspapers throughout the nineteenth century, and yet the sickly still came, often on the advice of their physicians or on their own initiative. While there was never a medical consensus for this treatment, the controversy became heightened in the middle of the nineteenth century. In 1850, a consumptive health traveller, John A. Mason, had his *Treatise on the Climate and Meteorology of Madeira* published posthumously.<sup>8</sup> Mason’s findings contributed to a deeply contested scientific question in the nineteenth century. Decades before the tubercle bacillus was discovered, decades still until its transmission was understood, the British medical community and general public debated the best way, or rather the best place, to cure what was then known as consumption. Mason’s *Treatise* was weaponized or dismissed in these discussions. This chapter contextualises Mason’s scholarship, as well as the debate around it which played out in national papers and scientific journals, within a larger negotiation over medical uncertainty in the nineteenth century.

Consumption contained a range of uncertainties, including the aetiology of the disease and its diagnosis, the responsibility of the patient in and for his or her illness, and the best treatment. The American physician Caleb Tinknor addressed some of these uncertainties in his *Exposition of Quackery and Imposture in Medicine* (1839). Regarding consumption, he pointed out that

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5 See Warwick Anderson, “Climates of Opinion: Acclimatization in Nineteenth-Century France and England”, *Victorian Studies* 35 (1992), no. 2: 135–157; Virginia Langum, “Prairie Madness: Mental Illness and Norwegian Immigration to North America in the Late Nineteenth and Early Twentieth Centuries”, *Literature and Medicine* 41 (2023), no. 1: 207–229; Grace Moore and Michelle J. Smith eds.), 2018. *Victorian Environments: Acclimatizing to Change in British Domestic and Colonial Culture* (London: Palgrave Macmillan 2018).

6 John Pemble, *The Mediterranean Passion: Victorians and Edwardians in the South* (Oxford: Clarendon Press, 1987: 84–96).

7 “Untitled Review of J.A. Mason’s *Treatise on the Climate and Meteorology of Madeira*”, *Liverpool Mail* (30.3.1850): 2.

8 John A. Mason, *A Treatise on the Climate and Meteorology of Madeira* (Edited by James Sheridan Knowles) (London: John Churchill 1850).

the label is “vaguely applied to a number of diseases possessing some external characteristic in common”, by which he meant symptoms such as emaciation, weakness, and coughing.<sup>9</sup> However, consumption is but one example in Ticknor’s book. He argued in general for greater trust in the medical professional as opposed to the “mercenary empiric” who peddled false cures on the basis of wrong diagnoses. The author explained that he used “empiric” synonymously with “quack”.<sup>10</sup> Although a popular treatise, Ticknor wrote, it does “not profess to teach every man to be his own doctor; but, on the contrary, it aims to show that, to cure diseases, something more is requisite” than the various potions and pills offered by those outside professional medicine to the gullible and desperate public. Ticknor’s book circulated on both sides of the Atlantic. Extracting from and commenting upon it, a reviewer for the British *Medico-chirurgical Review and Journal of Medical Science*, wrote, “half our practice is guess-work.”<sup>11</sup> Of Ticknor’s goal to “overthrow quackery in medicine”, the reviewer stated, “good intentions, no doubt, but quite impracticable.”<sup>12</sup>

Indeed, there was much ‘guesswork’ involved in the diagnosis of consumption that persisted throughout the nineteenth century. Even more so, there was disagreement about how the disease spread. While there is some evidence of popular and scientific belief in contagion, theories of heredity held fast in British and American medicine, even after Koch’s eventual discovery of the tubercle bacillus in 1882.<sup>13</sup> When it came to treatment, physicians suggested lifestyle alterations, such as diet, and travel to different climates. The climes chosen for therapy were often more a question of tradition than informed advice, and several doctors, such as James Clark, tried to specify and systematize knowledge about healthy climates during the first half of the nineteenth century.<sup>14</sup> While based on older Hippocratic ideas, the

9 Caleb Ticknor, *An Exposition of Quackery and Imposture in Medicine; Being a Popular Treatise on Medical Philosophy* (London: James S. Hodson 1839).

10 Ticknor, *An Exposition of Quackery* (1839): 5.

11 “Review of Ticknor’s *An Exposition of Quackery and Imposture in Medicine*”, *The Medico-Chirurgical Review and Journal of Medical Science* 34 (1839): 404.

12 “Review of Ticknor’s *An Exposition of Quackery*” (1839): 405.

13 Katherine Byrne, *Tuberculosis and the Victorian Literary Imagination* (Cambridge: University Press 2011). This also seems to have been the case in France. See David S. Barnes, *The Making of a Social Disease: Tuberculosis in Nineteenth-Century France* (Berkeley: University of California Press 1995).

14 Vladimir Janković, “The Last Resort: A British Perspective on the Medical South, 1815–1870”, *Journal of Intercultural Studies* 27 (2006), no. 3: 271–298.

quantified and scientific approach represented a new science of medical climatology, later called climatotherapy.

Consumption was the fulcrum for discussion of medical uncertainty and even greater societal uncertainty. The medical interest in consumption coincided with rapid industrialisation. As the literary historian Katherine Byrne points out, although there was a decline in deaths from consumption beginning in 1830 in Britain, there was a proliferation of medical publications about the disease after 1840. Byrne credits this interest with a “reflection of its newly awakening, *perceived* social significance”.<sup>15</sup> While many scholars have unpicked the social and cultural meanings of tuberculosis, this article focusses on the uncertainty of treatment by climate, particularly on the Portuguese island of Madeira.<sup>16</sup> Enmeshed within the issue of climate as cure were the other uncertainties mentioned above. In exploring the ‘Madeira cure’, the article will consider medical publications and reviews of such works, travel guides, and relevant pamphlets and journalistic essays. The authors of these works often fit into two roles: patient and doctor. Mason, for example, was both a patient and a scientist who criticized anecdotal patient testimony in favour of scientific measurements. It is also not always possible to disentangle genres, particularly travel writing from medical writing. Whether or not they were trained as doctors, many travellers include medical information, either extracted or paraphrased from medical texts. Examination of this chapter in the history of medical tourism reveals a struggle between the value of sensation over science, or patients and medical professionals over treatment.

## 2 Madeira, the British and Health

Madeira is an archipelago in the Atlantic Ocean, consisting of the main island Madeira, a smaller island Porto Santo, and three small islands to the south-east which are now nature reserves. Located about 310 miles from Africa and 620 miles from Europe, Madeira has a celebrated temperate climate. The island’s location and climate are two main factors in explaining a long

<sup>15</sup> Byrne, *Tuberculosis and the Victorian Literary Imagination* (2011): 12.

<sup>16</sup> See also, Clark Lawlor, *Consumption and Literature: The Making of a Romantic Disease* (London: Palgrave Macmillan 2006); Byrne, *Tuberculosis and the Victorian Literary Imagination* (2011), and Carolyn A. Day, *Consumptive Chic: A History of Beauty, Fashion and Disease* (London: Bloomsbury 2019).

entanglement of the British with the island. The British had a long strategic interest in Madeira, and there was a community on the island as early as the sixteenth century.<sup>17</sup> Madeira was often a port of call for ships venturing to the West Indies and South America, and the island was part of the Atlantic trading system. The most significant business of the British was the wine trade. Madeira wine proved hugely popular in the British colonies in North America and India.<sup>18</sup>

Then there were the many British who flocked to the island for their health. Scientists in the eighteenth and nineteenth centuries blamed the British climate for various illnesses. The two main conditions caused by the climate were the 'English malady' (later known as 'wear and tear' or nervousness) and pulmonary disorders, such as consumption. Focussing on nervous conditions, George Cheyne's *English Malady* (1733) noted the contribution of the English climate to the prevalence of these illnesses.<sup>19</sup> In his later *The Natural Method of Cureing the Diseases of the Body* of 1742, Cheyne linked nervousness with consumption, or *Phthisis pulmonum*.<sup>20</sup> Variability and the damp were thought to be the key culprits in causing the disease.<sup>21</sup>

While there is a long history of people, particularly privileged people, travelling to more healthy environs, the trend of seeking more healthy environments intensified in the 1700s and 1800s, both bolstered by the 'Grand Tour' and improvements in travel.<sup>22</sup> In the eighteenth century, the 'Grand Tour' was usually undertaken by young European men to visit antiquities. Visits to spas and healing waters featured in these travels, and in the process revived many

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17 Desmond Gregory, *The Beneficent Usurpers: A History of the British in Madeira* (London: Farleigh Dickinson University Press 1988): 15.

18 Alistair Mutch, "Europe, the British Empire and the Madeira Wine Trade", *Northern Scotland* 9 (2016): 21–42.

19 George Cheyne, *The English Malady: Or, a Treatise of Nervous Diseases of All Kinds; as Spleen, Vapours Lowness of Spirits, Hypochondriacal, and Hysterical Distempers, &c.* (London: G. Strahan 1733).

20 George Cheyne, *The Natural Method of Cureing the Diseases of the Body and the Disorders of the Mind Depending on the Body, in Three Parts* (London: Geo. Strahan 1742): 186.

21 See Jan Golinski, *British Weather and the Climate of the Enlightenment* (Chicago: University Press 2007).

22 On the 'Grand Tour' and health travel, see Warwick Frost and Jennifer Laing, "History of Spa Tourism: Spirituality, Rejuvenation and Socialisation", in: Melanie Kay Smith and László Puczko (eds.), *The Routledge Handbook of Health Tourism* (New York: Routledge 2016): 9–19. On general improvements to travel conditions and their relation to health travel, see George Revill and Richard Wrigley (eds.), *Pathologies of Travel* (Amsterdam: Rodopi 2000).

ancient healing places. With technological improvements in travel in the nineteenth century, namely steam-powered trains and boats, touring opened up to a wider group of travellers.<sup>23</sup> Travel for health lent a respectable purpose both to the travel and writing about it.<sup>24</sup> For example, Henry Matthews recorded his travels through Portugal, France, Switzerland, and Italy in *Diary of an Invalid, Being the Journal of a Tour in Pursuit of Health* (1820). The book was enormously popular and issued in several editions during the nineteenth century.<sup>25</sup> Southern European cities in Italy and France were popular health tourist spots, but some invalids ventured further to China, South Africa, the Crimea, Australia, Egypt and the American West.<sup>26</sup> Particular climates corresponded to particular ailments.<sup>27</sup>

A change of air was prescribed by doctors or self-prescribed by patients, both for the air itself, as well as other indefinable qualities.<sup>28</sup> Robert Bath's *An Essay on the Medical Character* (1785) illustrated this idea:

Change of object, change of air, change of things, to contemplate, and other variations, all contribute something, in favour of the patient, and when it is considered, that this something, is not to be found, but, by this change, I apprehend that the propriety, of the measure, is too evident, to require, farther demonstration, and proof.<sup>29</sup>

This indefinable “something”, the change of things to contemplate and observe, affected patients’ health by improving their emotional and mental state. Such psychosomatic treatment was part of the neo-Hippocratic understanding of the inter-relationship between environment, climate and health. Given the expense and association of travel with culture, travel for medical purposes became fashionable in the nineteenth century. A cartoon from an 1890 edition of *Punch* illustrated the connection between fashion and health travel, as well

23 James Buzard, *The Beaten Track: European Tourism, Literature, and the Ways to ‘Culture’ 1800–1918* (Oxford: Clarendon Press 1993): 32–47.

24 Maria H. Frawley, *Invalidism and Identity in Nineteenth-Century Britain* (Chicago: University Press 2004): 113–155.

25 Frawley, *Invalidism and Identity* (2004): 114.

26 Frawley, *Invalidism and Identity* (2004): 113–155 and Richard E. Morris, “The Victorian ‘Change of Air’ as Medical and Social Construction”, *Journal of Tourism History* 10 (2018), no. 1: 49–65.

27 See Janković, “The Last Resort” (2006): 276–277.

28 See Morris, “The Victorian ‘Change of Air’” (2018): 49–65.

29 Robert Bath, *An Essay on the Medical Character, with a View to Define It: To which Is Subjoined, Medical Commentaries and Observations, Adapted to Various Cases of Indisposed Health* (London: G. Laidler 1785): 167.

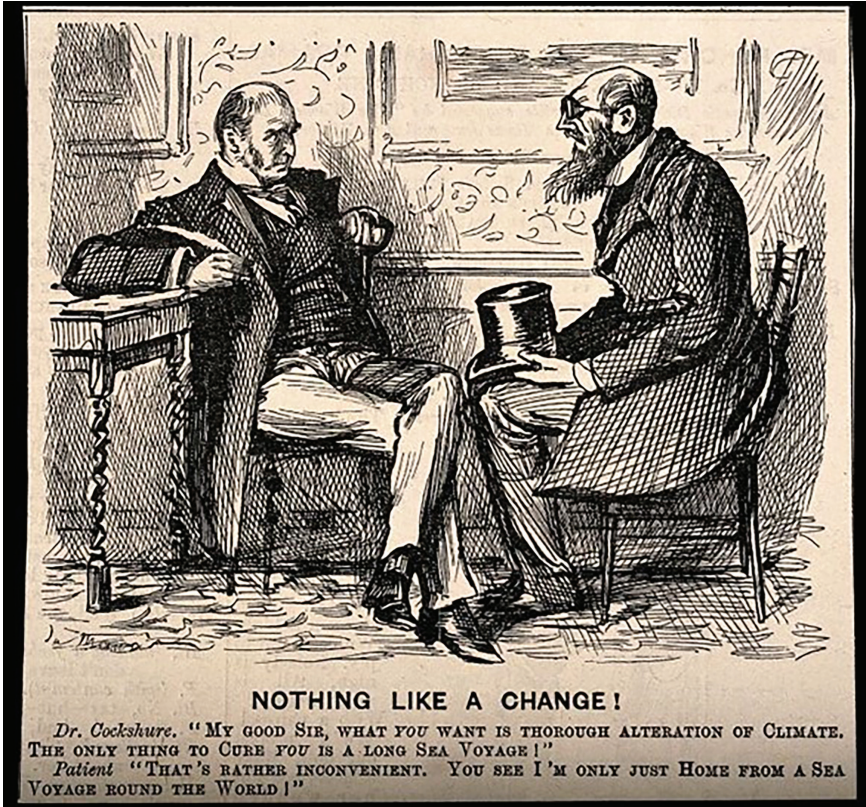


FIGURE 5.1 A doctor advising a patient that a sea voyage is what he needs to cure him, the patient retorts that he has just returned from one. Wood engraving after George Du Maurier.

SOURCE: FRANCIS COWLEY BURNAND, *PUNCH, OR THE LONDON CHARIVARI* 98 (8.2.1890). IMAGE FROM WELLCOME IMAGES, [HTTPS://WELLCOME COLLECTION.ORG/WORKS/R8R82DBR](https://wellcomecollection.org/works/r8r82dbr); [HTTPS://WWW.GUTENBERG.ORG/FILES/30033/30033-H/30033-H.HTM](https://www.gutenberg.org/files/30033/30033-H/30033-H.HTM) (ACCESSED ON 30.1.2024)

as some scepticism (see Figure 5.1). Here, a well-dressed man consulted "Dr Cockshure" who advised an alteration of climate. The cure was in "a long sea voyage", yet the patient had already come back from one. It may also suggest that the patient had already taken the matter into his own hands before consulting a doctor. There was a recurring contest for authority over medical care and responsibility for illness in nineteenth-century writing about health travel and consumption, as will be seen.<sup>30</sup>

<sup>30</sup> See Frawley, *Invalidism and Identity* (2004): 135–136; Byrne, *Tuberculosis and the Victorian Literary Imagination* (2011): 41–42.

### 3 James Clark and the Medical Study of Climate

Until the mid-nineteenth century, consumption was largely thought to be an inflammatory disease, which could benefit from rest and change of climate.<sup>31</sup> However, the efficacy of the climate cure was never entirely agreed upon. In his *Manual of Health* (1806), Thomas Beddoes criticised doctors who sent patients with serious diseases, such as consumption, away: “[medicine] is still more the art of amusing those patients, whose diseases it can neither remove nor palliate. Those who amuse the patient have more success than those who cure the patient; medical attendants frequently aim more at amusing than curing.”<sup>32</sup>

One of the major figures in promoting the climate cure or climatotherapy was Sir James Clark, a Scottish physician with some notable patients, including Queen Victoria. Rather than merely “amuse” by prescribing traditional resorts, Clark sought a scientific and statistical basis for climate recommendations.<sup>33</sup> He wrote an influential book on climate and health: *The Influence of Climate in the Prevention of Diseases* (1829) which he updated in 1841 as *The Sanative Influence of Climate: with an Account of the Best Places of Resort for Invalids*. Clark recommended Madeira as “altogether the best” for consumptive patients.<sup>34</sup> It lacked the qualities thought harmful in British weather: it was dry, and it was equable. Madeira had an added advantage over other places in the south of Europe in that invalids could live there year-round. Indeed, the uniform and stable climate of Madeira was reflected in the ideal of “rooms maintained at a Madeira temperature” in England, as well as the name of “Madeira House” in Bristol, a facility dedicated to pulmonary disorders and a “Madeira Village” in the English health resort of Torquay.<sup>35</sup>

However, Clark urged that patients should not be sent away to foreign climates indiscriminately. Madeira was only for consumptives in the early stage of the disease; it was not to be prescribed as a “last resource”.<sup>36</sup> While Clark included the same positive description of the island, he wrote in the later

31 Helen Bynum, *Spitting Blood: The History of Tuberculosis* (Oxford: University Press 2012): 69–94; Sheila M. Rothman, *Living in the Shadow of Death: Tuberculosis and the Social Experience of Illness in American History* (Baltimore: The Johns Hopkins University Press 1994): 19–22.

32 Quoted in Vladimir Janković, *Confronting the Climate: British Airs and the Making of Environmental Medicine* (London: Palgrave Macmillan 2010): 133.

33 Janković, “The Last Resort” (2006): 271–298.

34 James Clark, *The Sanative Influence of Climate: With an Account of the Best Places of Resort for Invalids in England, the South of Europe, &c.* (London: John Murray 1841): 56.

35 See Janković, “The Last Resort” (2006): 271–298; Madeira Village is mentioned in Clark, *The Sanative Influence of Climate* (1841): 77.

36 Clark, *The Sanative Influence of Climate* (1841): 269.

version that he feared positive examples of successfully treated consumptives had “encouraged many to go to Madeira who would have found it better to remain at home”.<sup>37</sup> Those who ought to remain home were the confirmed, advanced cases of consumption. The “melancholy picture” of the many advanced cases who died on the island “ought to impress medical men with a deep feeling of heavy responsibility” in making recommendations to their patients.<sup>38</sup>

Clark’s name and opinions of the island were cited by writers of guidebooks to Madeira, who referred to his comments on the benefits of the climate in Madeira for invalids, often including large chunks of his writing. One such writer was the surgeon William White Cooper, who travelled to Madeira for his health and subsequently wrote about his impressions in his *Invalid’s Guide to Madeira* (1840).<sup>39</sup> With reference to his discussions about climate and Madeira, White Cooper claimed “it is impossible to speak too highly” of Clark.<sup>40</sup>

#### 4 Clark, Mason and Madeira

One of Clark’s notable patients was John Abraham Mason, whose *Treatise on the Climate and Meteorology of Madeira* (1850) was posthumously dedicated to his doctor. This book was to prove a lightning rod of controversy upon publication. The book was published after Mason’s death and records observations that he made in 1834–1835 using his own invention: the Mason hygrometer. Mason was himself a physician who studied in Paris and eventually took his degree at Edinburgh. In 1820, Mason was diagnosed with consumption and, on the advice of his physician, decided to go to Nice to seek a cure. However, en route to Nice, Mason was delayed at Dieppe to care for a relative with brain fever. Mason cared for him for seven weeks after which “the favourable season for a visit to Nice was lost.”<sup>41</sup> Clark then recommended Madeira.

These details are provided in the introduction to Mason’s book, written by the renowned Irish playwright James Sheridan Knowles, who also had a medical degree. Mason’s delay proved a critical part of the story. Sheridan Knowles described the chain of events by which Mason arrived at Madeira and

37 Clark, *The Sanative Influence of Climate* (1841): 271.

38 Clark, *The Sanative Influence of Climate* (1841): 270.

39 William White Cooper, *The Invalid’s Guide to Madeira with a Description of Teneriffe, Lisbon, Cintra, Maqra, Etc. and a Vocabulary of the Portuguese and English Languages* (London: Smith, Elder and Co. 1840).

40 White Cooper, *The Invalid’s Guide to Madeira* (1840): 75.

41 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): x.

introduced a few important themes. While Sheridan Knowles praised Mason's dedication to science, he also hinted that this dedication in fact adversely affected his health in Madeira:

Apart from the value of Dr. Mason's work, as affording a just estimate of a climate, the resort of a particular and large class of invalids; his labours acquire an interest from the fact of their having been prosecuted in a state of extremely infirm health, regardless of the influence which they must have had in aggravating the symptoms and lessening the chance of recovery. He may be truly said to have sacrificed his life to professional zeal.<sup>42</sup>

That Mason hastened the progress of the disease by his own actions is reminiscent of other medical literature which blames consumptive invalids themselves for not being cured. These invalids simply did not act as invalids should. Such a suggestion was included in a text appended to Mason's *Treatise*. In a section entitled "Advice to Invalids", John Driver included an excerpt from Andrew Combe (another medical man who was also a health traveller to Madeira and yet another patient of James Clark) who described his impressions of misguided invalids on the island:

In truth it makes one sad to see so many examples of every chance of recovery, although sought at such a sacrifice, thrown away by follies of conduct [...]. They imagine climate to be everything, and to dispense with all care or precaution on their part. One approved method of sacrificing health and chances, consists in taking a few days of latitude in eating, drinking, and scampering about to see sights, *before* settling down and seeing the doctor, because he will forbid such extravagancies. The excitement of a new scene carries them through a few days of this; and, while it lasts, they are delighted to find themselves so much better already! The consequence too often is, that at the end of a week, they take to bed, and then send for the doctor, and, when the evil is done, resolve to follow his advice in future.<sup>43</sup>

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42 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): VII.

43 John Driver, "An Historical and Descriptive Account of the Island, and Guide to Visitors", in: Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 378–379. See also, George Combe, *The Life and Correspondence of Andrew Combe, M.D.* (Edinburgh: Maclachlan and Stewart 1850). John Driver himself initially travelled to Madeira on the grounds of his health. See John Driver, *Letters from Madeira in 1834 with an Appendix, Illus-*

The passage hinted at the rejuvenating possibility of going abroad, yet the improvement is short-lived and possibly dangerous without the appropriate direction of medical authority. Combe also hints at the danger of patients interpreting data themselves. Patients “accustomed to implicit faith in the thermometer” who acted and dressed accordingly on the island suffer “the heaviest punishments, in the form of catarrh, and other chest attacks”.<sup>44</sup>

While Mason was not guilty of behaving like Combe’s wayward tourist, the introduction to his *Treatise* made clear the great personal sacrifices that Mason had made. Sheridan Knowles described his behaviour as something Mason would never have allowed in his own patient. Mason was a “martyr [...] to meteorological investigation” in his “fanaticism” for science.<sup>45</sup> After a year and ten months, Mason completed his study and finally arrived at Nice where he contracted dysentery and died.

The autopsy ordered by Clark revealed that while Mason’s lungs were in bad shape, he might have lasted another four or five years. But the dysentery is not blamed. Instead, Sheridan Knowles wrote this prognosis “might possibly have been doubled, if not extended to the ordinary span, had not the ardour of scientific investigation superseded the solicitude which was due to the love of life”.<sup>46</sup> In emphasizing the delay of Mason’s travel and terrible self-imposed conditions – the fatigue, the strain, the exposure – I would argue that Sheridan Knowles anticipated some of the criticism of Madeira and climate cures that would follow.

## 5 Mason’s Findings and His Editors

Mason’s actual discussion of his results was more modest than the debate which followed suggested.<sup>47</sup> He shared a strong conviction on the influence of climate, particularly moisture, on health. Mason saw his work as adding precision to the science of climate and health. Thus, he had set out to measure this with his hygrometer, measuring every three hours from 1 March 1834 to 28 February 1835.<sup>48</sup> What he found, despite the claims that Madeira was dry,

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*trative of the History of the Island, Climate, Wines and Other Information up to the Year 1838* (London: Longman & Co. 1838).

44 Quoted in John Driver, “An Historical and Descriptive Account” (1850): 380.

45 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): VII.

46 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): XI–XII.

47 See Janković, *Confronting the Climate* (2010): 142–143.

48 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 7.

was that it was far wetter than London.<sup>49</sup> While there was perhaps less rain, the island was often under clouds of aqueous vapour. He noted that the vegetation grew from moisture in the air, and that powder clumped, gloves and shoes sprouted fungi, silk spotted, and metals rusted.<sup>50</sup> He did not dispute the climate was temperate, but he did advise that invalids test the effect of the *leste* on their condition. The *leste* is a seasonal, hot, dry easterly wind. If invalids improved, as he had, they should move on to a drier climate. If the wind was taxing for their ailment, they should stay on the island.<sup>51</sup> He also noted that there was a high rate of consumption among Madeirans, and he suspected that people died younger on the island than in England.<sup>52</sup> This detail had not gone unnoticed in previous medical literature. Clark himself raised the issue of consumption among native Madeirans. He referred to differing opinions on the prevalence of the disease to conclude that it was a “rare disease, compared with what it is in more northern countries”.<sup>53</sup>

In addition to his qualifying discussion of the conditions of Mason’s work, Sheridan Knowles also intervened at the end of the *Treatise*. Here, he included other observations, made after Mason’s death. He further suggested that travellers take their own measurements to contribute evidence and certainty of the Madeira cure: “if visitors to Madeira would employ a part of their leisure in recording the state of the weather, much of the difference of opinion, now existing, as to the advantages or disadvantages of its climate, in certain cases of disease would disappear.”<sup>54</sup> This plea is intriguing, as Mason seemed to be highly sceptical of amateur observations. He noted a general lack of scientific curiosity about other natural phenomena on the island.<sup>55</sup> During his stay, several residents observed to Mason that the period of his stay was unusual in terms of rain. Mason questions such anecdotal evidence yet acknowledges their power, even anticipating how his own scientific work would land: “it would be a difficult task to convince many of the residents that the climate is at all damp; although the fact admits of being proved in the most satisfactory and philosophical manner.”<sup>56</sup>

Mason remarked upon false beliefs about Madeira and its healthy climate in relation to his own work:

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49 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 30.

50 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 31.

51 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 27–28.

52 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 108.

53 Clark, *The Sanative Influence of Climate* (1842): 265.

54 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 199.

55 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 22.

56 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 33.

as such false and altogether pseudo-poetical views have hitherto given, and appear to have gained universal credence, both with the profession and public, generally; it is high time to remove an erroneous impression, as it will be the means of preventing much disappointment to those invalids who may hereafter visit the Island, and whose ideas have been deluded by the description, previously given to the public, – particularly in a modern publication, so late as November, 1834 – a work eminently calculated to inspire the mind with the most vivid and enthusiastic feelings, too soon, alas, to be dissipated, when the real picture meets the eye of the unfortunate stranger; whose mind, being filled with the idea that he is about to enter a perfect paradise, cannot bring itself to believe the plain matter of fact, without a pang of regret and disappointed hope.<sup>57</sup>

He blamed publications that fostered a romantic and misleading view of the island. Mason was quite possibly referring to a short pamphlet entitled *A Letter to an Invalid about to Visit Madeira* (1834).<sup>58</sup> The author who admitted in the first sentence to being “neither physician nor philosopher”, proceeded by trying not to “weary [the reader] with an elaborate statistical account of the island”.<sup>59</sup> Referencing Clark, the author of the pamphlet touted the superiority of Madeira over the “fickle climate” of England.<sup>60</sup> The author then boasted of sunshine and beautiful landscapes.

Had he lived, Mason would have likely objected to a text by John Driver (“Historical and Descriptive Account of the Island of Madeira, and Guide to Visitors”) being appended to his *Treatise*. Driver had published his own romantic account of having been healed in Madeira in the very same year that Mason had travelled.<sup>61</sup> In his *Letters from Madeira in 1834* (1838) Driver described himself as an invalid who went to Madeira for his health and “left the Island perfectly convalescent”.<sup>62</sup> He stated that Madeira deserved its reputation for health, claiming the authority of experience: “having tried many of the most favoured spots in Europe, without meeting with any place at all approximating to it in equality of temperature, and freeness from damp or dew”.<sup>63</sup> These impressions were, of course, in direct contradiction to Mason’s findings.

57 Mason, *A Treatise on the Climate and Meteorology of Madeira* (1850): 56.

58 *A Letter to an Invalid about to Visit Madeira* (London: 1834).

59 *A Letter to an Invalid* (1834): 3.

60 *A Letter to an Invalid* (1834): 5.

61 Driver, *Letters from Madeira* (1838).

62 Driver, *Letters from Madeira* (1838): v.

63 Driver, *Letters from Madeira* (1838): 67–68.

## 6 Reception of Mason in the Press and the Medical Community

Mason's book was widely noticed and reviewed in British newspapers, with some choosing to print large portions from it. Some echoed Sheridan Knowles' opinion and even language. While one reviewer for the London *Morning Chronicle* found the book "enforced with all the authority of a voice speaking from the tomb", he also detailed Mason's relentless pursuit. "Under such circumstances, it will excite no surprise in the mind of the reader to learn that Dr. Mason's residence [...] was not attended by any beneficial results." Echoing Sheridan Knowles' language, the reviewer branded Mason a "self-immolated martyr to the cause of science".<sup>64</sup> So, too, the *Liverpool Mail* attributed Mason's decline to his scientific dedication: "it may be truly said, that he sacrificed his life to professional zeal."<sup>65</sup>

Other reviews focussed less on blaming Mason for his own death and more on the significance of his results. A second review in the *Liverpool Mail* wrote that "the FACT is now placed beyond dispute that Madeira, however desirable in a considerable class of cases, is *not* universally eligible, nor for all consumptive cases." The review went on to sympathize with consumptives sent to die on the island: "when medical skill can do little else, how often, if means can be raised, are the poor sufferers 'ordered to Madeira,' too often on a bare peradventure – too often to breathe their last, away from their loved homes and their loving kindred, amid strangers in a strange land." The reviewer noted that the strategy was both "desperate" and "costly". While admitting to being a "non-professional" and not able to comment on the "debateable point: whether or no Consumption is curable by the most consummate medical art", the author laid out several significant issues that were circling around the climate cure and were taken up in the scientific debate that ensued after Mason's publication.<sup>66</sup> While the question of whether or not consumption could be cured by medicine at all remained unanswered, the human cost was clear: sickly patients were sent away to die without the comfort of friends, family and home. However, the review stopped short of completely denouncing Madeira, but rather stuck with Clark's language of "last resource".<sup>67</sup>

The medical community also reacted to Mason's *Treatise*. With heavy reference to Mason's findings, the physician Thomas Burgess argued against the

64 "Review of Mason's *Climate and Meteorology*", *Morning Chronicle* (2.4.1850): 7.

65 "Review of Mason's *Climate and Meteorology*", *Liverpool Mail* (30.3.1850): 2.

66 "Review of Mason's *Climate and Meteorology*", *Liverpool Mail* (13.7.1850): 3.

67 See Janković, "The Last Resort" (2006): 271–298.

foreign climate cure.<sup>68</sup> In 1852, he published *The Climate of Italy in Relation to Pulmonary Consumption with Remarks upon the Influence of Foreign Climate Upon Invalids*. Despite the title, Madeira, or what Burgess calls the “*Ultima Thule* of hectic invalids” was also heavily scrutinized.<sup>69</sup> Burgess wrote of the “unbroken faith” (elsewhere “popular faith” in “the talismanic efficacy”) of foreign climates to cure consumption.<sup>70</sup> Burgess argued for a nativist understanding of climate and health; he wrote that, “Nature has adapted the constitution of man to the climate of his ancestors.” This “natural climate” was not changed in one generation’s removal, but rather shaped by ancestry over several generations.<sup>71</sup> Therefore “*Change of air in his own climate*, or removal to one nearly approaching to it, is the natural indication, and will effect whatever good climate can effect in consumption.”<sup>72</sup>

Burgess also made an ethical argument against sending patients away to foreign countries, pointing out that medical travel abroad was only open to wealthy invalids. This inaccessibility affected the less fortunate invalid. As he wrote:

The patient in humble circumstances, whose means will not admit of a change of climate, frequently entertains similar views, and perhaps the bitterest pang he feels during the long course of his complaint, is the belief, that the means of cure exist, but that they are, unfortunately for him, beyond his reach.<sup>73</sup>

In his advocacy of British resorts for British invalids, Burgess was, perhaps unsurprisingly, joined by physicians resident in places such as Bath or Torquay. The thermal city of Bath and the coastal resort of Torquay were both popular health resorts in nineteenth-century England.<sup>74</sup> For example, James Tunstall’s *The Climate of Bath, in Reference to Pulmonary Consumption* (1854) quoted

68 See Janković, *Confronting the Climate* (2010): 14–45.

69 Thomas Burgess, *The Climate of Italy in Relation to Pulmonary Consumption with Remarks on the Influence of Foreign Climates upon Invalids* (London: Longman, Brown, Green & Longmans 1852): 40.

70 Burgess, *The Climate of Italy* (1852): 1, 13.

71 Burgess, *The Climate of Italy* (1852): 21.

72 Burgess, *The Climate of Italy* (1852): 21.

73 Burgess, *The Climate of Italy* (1852): 3.

74 See, for example, John F. Travis, *The Rise of the Devon Seaside Resorts, 1750–1900* (Exeter: University of Exeter 1993); Phyllis May Hembry, *British Spas from 1815 to the Present: A Social History* (Madison: Fairleigh Dickinson University Press 1997); and Matthew Charteris, *Health-Resorts at Home and Abroad* (London: J. & A. Churchill 1885).

Burgess at length. Tunstall made a similar argument to Burgess against foreign climate cures. He also pointed to the high rates of consumption in these foreign destinations.<sup>75</sup>

A vociferous voice against Mason and Burgess was the British barrister James Mackenzie Bloxam, a pulmonary patient who travelled to Madeira for a cure and continued to reside there after his convalescence.<sup>76</sup> Bloxam wrote letters, which were published, to the Madeira-based doctor George Lund, all directed at the “errors and misrepresentations” in publications of “some recent authors”, including Mason and Burgess. Bloxam wrote “not as a physician, but as a patient”.<sup>77</sup> Indeed he claimed that meteorology had “created distaste” in him.<sup>78</sup> He argued that rather than have “exclusive faith in meteorological data”, people should weigh the reports of patients more heavily, heeding their “sensations” of the “*suitability* of a climate”<sup>79</sup>. Experience was critical in determining the efficacy of the climate cure, he claimed, pitting Burgess “sitting in his study in Half-moon-street” (in London) and relying on “some columns of old meteorological observations” against the wisdom of patients and doctors who lived and worked there.<sup>80</sup>

He also cast specific doubts on Mason’s methods, conditions and equipment. As to the methods, Bloxam found that, by the author’s own admissions, Mason spent time away from his dwelling in Madeira. This meant that someone besides Mason must have taken some of the meteorological readings.<sup>81</sup> As to the conditions, Bloxam claimed first-hand knowledge of where Mason’s readings were taken, and stated that it was not ideal: a damp house with a water tank outside.<sup>82</sup> As Mason predicted about the difficulty of convincing

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75 James Tunstall, *The Climate of Bath in Reference to Pulmonary Consumption* (London: John Churchill 1854).

76 See Janković, *Confronting the Climate* (2010): 145–146.

77 James Mackenzie Bloxam, *The Climate of the Island of Madeira, and the Errors and Misrepresentations of Some Recent Authors on This Subject, Considered in a Letter Addressed to George Lund* (London: T. Richards 1854): 1.

78 Bloxam, *The Climate of the Island of Madeira* (1854): 1.

79 Bloxam, *The Climate of the Island of Madeira* (1854): 2–3, 10.

80 James Mackenzie Bloxam, *The Climate of the Island of Madeira, or the Errors and Misrepresentations on this Subject Contained in a Recent Work on Climate by T. H. Burgess, M.D., Considered in a Letter Addressed to George Lund, M.D.* (London: T. Richards 1855): 65. He also makes a point of pitting Burgess “*who never visited the island*” against “the opinions of all the authors [...] *all of whom had resided in this island*” in: Bloxam, *The Climate of the Island of Madeira* (1855): 24.

81 Bloxam, *The Climate of the Island of Madeira* (1854): 13.

82 Bloxam, *The Climate of the Island of Madeira* (1854): 14.

residents otherwise, Bloxam unequivocally states: “I deny that the climate of Madeira is damp.”<sup>83</sup>

Bloxam countered Burgess’s implied charge against physicians resident on Madeira who promoted or inflated the healing effects of the island:

Dr. Burgess [...] may imply that the resident medical men being prejudiced and interested, their opinions are not to be trusted; but, in so saying, he libels the profession in general rather than the individuals in particular against whom such observations are levelled. If we are to cast aside all medical statement and opinions which are open to the same objections, what have we left to trust to, and whom shall we believe?<sup>84</sup>

Instead, Bloxam claimed to be working against his own interests in defending Madeira as a treatment for consumptive invalids. He scoffed, “if I have any selfish interest in its sanitary fame, it is, certainly, to decry it; with a view to the reduction of house-rent and housekeeping expenses, which have been greatly raised by the influx of English visitors.”<sup>85</sup> Other invalids had complained about the prices in rent and other goods on the island.<sup>86</sup>

He further rejected the appeal to public science made by Mason’s editor, arguing that such observations would contain “a large mass of contradictory evidence, calculated to be useful to advocates of any views whatever, except the truth.”<sup>87</sup> Ultimately, it was Bloxam’s personal experience of illness and cure at Madeira that was the greatest blow against Mason and Burgess. As he wrote, “I have reason to think that I owe my life to the sanitary effects of the climate of Madeira.”<sup>88</sup>

## 7 Madeira and Malaise

In addition to Burgess and Bloxam, many other writers voiced support of or disappointment with Madeira. The anonymous writer of *A Brief Letter of Advice to an Invalid [...] by an Ex-Invalid* (1859) attributed the island with “the credit of restoring [the author] to life and health.”<sup>89</sup> In addition to lauding the healing

83 Bloxam, *The Climate of the Island of Madeira* (1855): 45.

84 Bloxam, *The Climate of the Island of Madeira* (1854): 23.

85 Bloxam, *The Climate of the Island of Madeira* (1855): 71.

86 See Virginia Langum, “A Paradise of Invalids: Medical Tourism and the Climate of Prejudice in Nineteenth-Century Madeira”, *Nordic Journal of English Studies* 21 (2022), no. 2: 61.

87 Bloxam, *The Climate of the Island of Madeira* (1854): 2.

88 Bloxam, *The Climate of the Island of Madeira* (1854): 20.

89 *Madeira: A Brief Letter of Advice to an Invalid, in Reply to a Request for Information about Madeira as a Winter Residence, by an Ex-Invalid* (London: Bell and Daldy 1859): 8.



FIGURE 5.2 Alfred Pulsford Latham, “Sketches of Funchal, Madeira – The English Cemetery”, *The Illustrated London News* (3.3.1886): 208.

climate, the author lists various amusements and attacks certain stereotypes. In particular, he attacks the “popular notion in England that Funchal is one great hospital”, here referring to the Madeiran capital. Instead, “you see more human misery in an hour in the streets of Bath, Cheltenham, and Torquay, than in Funchal in a whole season.”<sup>90</sup> Physicians in these English resorts offered contrasting opinions in publications that were also reviewed and excerpted in the press; for example, Tunstall’s *The Climate of Bath*.

As the nineteenth century progressed, medical writers continued to quibble about the kinds of climate to which invalids were sent, arguing that they should be calibrated more precisely to particular diseases and stages of disease. The Edinburgh physician Pinkerton wrote in 1857 “if all were sent to Madeira, no wonder many would die, several receive no benefit, and a few recover; hence it is that the opprobrium of the ‘English Grave’ has been bestowed on Madeira.”<sup>91</sup> The British cemetery in Funchal (see Figure 5.2) was often invoked in these discussions.

90 *Madeira* (1859): 8.

91 Archibald William Pulteney Pinkerton, *Introductory Lecture on Climate* (Edinburgh: Sutherland and Knox 1857): 20.

In a long essay entitled “The Dangers of Madeira”, a writer for the *Fortnightly Review*, Frederic Sayer, blasted physicians for their ignorance of climate and health. Likewise, he described the “hypochondriacal invalid yearning for the cheering influence of new and lively impressions [...] transported to a remote island, away from friends, society, and amusement”.<sup>92</sup> He claimed that doctors deliberately inflated the healing qualities of Madeira: “For many years Madeira achieved, by an elaborate professional system of puffing, a greater reputation than any other sanatorium. But latterly, the island has become less fashionable; and for the last eight years the number of visitors has rapidly decreased.”<sup>93</sup> The author then proceeded to summarize Mason’s “subversive” work and presented some personal experiences of two winters’ residence on the island. In making a case against travel to the island, Sayer argued that invalids suffer from lack of distractions, a lack of “mental and moral” stimuli. Without opportunities for diversion, invalids could only talk to other invalids, which involved the cataloguing of symptoms and recent deaths. Such activity only served to depress them and further damage their health:

The invalid who contemplates spending a winter in Madeira must bear in mind that he is about to submit to self-imposed transportation to an island in the midst of the Atlantic, six hundred miles from the nearest port of communication in Europe, difficult of access, and still more difficult to escape from; to an island which the waves of civilisation have not yet reached, where there are no resources of amusement or recreation for mind or body; where there is no society, no literature, no subject for conversation, save sickness and death; where communication with home is infrequent and uncertain; where everybody is indifferent to the great public questions which may be affecting Europe or America; where there is nothing to excite interest, no public question to discuss, no science to attract; where, in a word, there is only apathy, indolence, and stagnation.<sup>94</sup>

The image of Madeira here does not entirely accord with other descriptions by English travellers, some of which complained that Madeira was not “foreign” enough, an English society being so entrenched on the island.<sup>95</sup>

92 Frederic Sayer, “The Dangers of Madeira”, *Fortnightly Review* (5,6.1865): 612.

93 Sayer, “The Dangers of Madeira” (1865): 613.

94 Sayer, “The Dangers of Madeira” (1865): 614–615.

95 Throughout the nineteenth century, most writings on Madeira remarked on English society on the island. In 1827, Lyall’s famous *Rambles* wrote that the large number of English means they “are thus at liberty to preserve all their old ways and habits [...] and a stranger

Noting that consumption was “almost unknown” in cold climates such as Iceland and Greenland, Sayer argued that moist heat aggravated the disease. In the early stages of consumption “the vital power should be invigorated by every possible means: the appetite strengthened, the body braced, and energy given to the constitution to throw off the symptoms.” Yet in the “extreme climate, like that of Madeira” the patient’s “frame becomes relaxed” and the body breaks down.<sup>96</sup>

Sayer’s language reflected not only scientific understandings of enervating and bracing weather, but also long-held geographic stereotypes of southern Europe and southern Europeans as idle.<sup>97</sup> Furthermore, the article revealed a shift in thinking about medical travel for consumption. In the mid-nineteenth century, southern resorts faced competition from Alpine resorts. Robert Koch’s discovery that tuberculosis was caused by bacteria in 1882 strengthened belief in the capacity of cold air to slow down or even kill bacteria reproduction.<sup>98</sup> Climate cures came into further doubt by rates of consumption published in 1887 by James Alexander Lindsay, a doctor at the Consumptive Hospital in Belfast. His figures suggested that the rates of mortality from consumption were the same in Norway, Holland, and Italy. Furthermore, wet places such as the Hebrides, the Shetlands, the Faroe Islands and Iceland were nearly immune to the disease, suggesting that dryness was not nearly as relevant as earlier thought.<sup>99</sup>

While it may be that the atmosphere of Madeira changed in the course of its decline as a consumptive resort around the time Sayer formed his observations, others still advocated the island as a climatotherapeutic cure for a long time to come, for example Michael C. Grabham in his *The Climate and Resources of Madeira as Regarding Chiefly the Necessities and Welfare of Invalids*

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[finds] so little of novelty in the social habits and forms of the place.” See Alfred Lyall, *Rambles in Madeira and in Portugal, in the Early Part of 1826, with an Appendix of Details, Illustrative of Health, Climate, Produce, and Civil History of the Island* (London: C. & J. Rivington 1827): 21. A writer in 1851 remarked that there is “very little to remind you that you are living amongst foreigners”. See Edward Vernon Harcourt, *A Sketch of Madeira Containing Information for the Traveller, or Invalid Visitor* (London: John Murray 1851): 35. On British and Madeiran interaction, see Langum, “A Paradise of Invalids” (2002): 52–72.

96 Sayer, “The Dangers of Madeira” (1865): 622.

97 See Langum, “A Paradise of Invalids” (2002): 52–72 and Maria Clara Paulino, “The ‘Alien’ European: British Accounts of Portugal and the Portuguese, 1780–1850”, in: Martin Farr (ed.), *The British Abroad Since the Eighteenth Century, Volume 1: Travellers and Tourists* (London: Palgrave Macmillan 2013): 101–116.

98 Alison F. Frank, “The Air Cure Town: Commodifying Mountain Air in Alpine Central Europe”, *Central European History* 45 (2012), no. 2: 185–207.

99 Jankovic, “The Last Resort” (2006): 271–298.

(1870). Grabham was a doctor born on the island and had lived there most of his life. In addition to practical information and meteorological measurements, Grabham had much to say about the healing properties of the place, which extended beyond the climate. He described the “general influence of Madeira” as follows:

in its very foreign aspect of things, in the maintenance of accustomed luxury amidst a strange and bounteous profusion, in the facilities which the place affords for general participation in its own peculiar enjoyment, and in the social attitude of its inhabitants. All these circumstances, and the like, exert a useful hygienic influence, some of them directly and physically, others remotely and morally.<sup>100</sup>

For Grabham, the Madeira cure was as much about distraction as about the climate: “the various novelties [...] serve for a time, at least, to divert the mind from an accustomed groove of depressing thought to happier and more hopeful considerations.”<sup>101</sup>

Such ideas persisted. As late as 1887, the British physician and professor of medicine James Alexander Lindsay argued for the “unhoped for benefit which accrues from change of air” particularly in the case of consumption.<sup>102</sup> This is the same Lindsay who published mortality rates of consumptives. Here, he referenced the psychosomatic impacts of travel: “Its influence is not only mental, but physical, and the two favourably react, the one upon the other. New objects of interest excite to renewed vigour of mind and body. New conditions of life render old and injurious habits no longer possible.”<sup>103</sup> Here Lindsay not only suggested that patients might be to blame for their “injurious habits”, but also explained why the local populations in resorts often had high rates of consumption: “climates which breed consumption may yet be sometimes beneficial to the consumptive traveller from other lands.”<sup>104</sup> Madeirans did not benefit from the air in their own climate, simply because it lacked novelty for them.

Advice to go abroad had been qualified in the scientific literature well before Mason’s *Treatise*. The type of disease, the stage of that disease, the behaviour

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100 Michael C. Grabham, *The Climate and Resources of Madeira as Regarding Chiefly the Necessities of Consumption and the Welfare of Invalids* (London: John Churchill 1870): 157.

101 Grabham, *The Climate and Resources of Madeira* (1870): 158.

102 James Alexander Lindsay, *The Climatic Treatment of Consumption: A Contribution to Medical Climatology* (London: Macmillan and Co. 1887): 33.

103 Lindsay, *The Climatic Treatment of Consumption* (1887): 33.

104 Lindsay, *The Climatic Treatment of Consumption* (1887): 33.

of the patient were all things to be considered. However, the volume and vituperative nature of the debate increased after this publication. Writing in 1870, an American doctor remarked that “hardly any place, so limited in extent, has been so thoroughly worked up by medical men and naturalists, as the island in question.”<sup>105</sup> He lamented that these texts were not easily available in American libraries, and thus Americans often missed Madeira as a resort.

## 8 Conclusion

In the middle of the nineteenth century, pulmonary patient Lord Albert Denison recorded a journey for health which took him to southern Europe. While in Greece, Denison muses about the “uncertainty of all that has to do with this life” and that “a longer journey might be at hand [...] to that far country whence no traveller returns.”<sup>106</sup> As historians have observed, pilgrimage was often used as a frame or point of reference in patient writing about medical travel.<sup>107</sup> Denison and others fold uncertainty and medical travel into a “religious quest.”<sup>108</sup> In contrast, the materials examined in this article deploy religious imagery negatively, participating in an urgent debate about uncertainty surrounding climate cures. The uncertainty surrounding the Madeira cure was made highly public in the debate that played out over newspapers, pamphlets, scientific publications and books. These texts offered competing narratives about Madeira, whether it was wet or not; whether it was unpleasant or not; whether it was better to send invalids at a particular stage of disease or whether they should be sent there at all. Despite the uncertainty, patients were often the drivers for such uncertain treatments. Nineteenth-century patients were persuaded by positive accounts of cured invalids who had been to Madeira. These patients wrote pamphlets and books about their cures as we have seen in the works of the anonymous “Ex-Invalid”, John Driver and James Mackenzie Bloxam. Such accounts both used medical material to support their claims or argued against medical material when it did not, prizing patient experience above science.

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105 Francis H. Brown, “Some Observations on the Climate and Medical Resources in Madeira”, *The Boston Medical and Surgical Journal* 5 (1870), no. 19: 345–351.

106 Albert Denison, *Wanderings in Search of Health* (London: Printed for Private Circulation 1849): 73.

107 Frawley, *Invalidism and Identity* (2004): 121; Rothman, *Living in the Shadow of Death* (1994): 58.

108 Rothman, *Living in the Shadow of Death* (1994): 58.

## Holism and Therapeutic Uncertainty in Physician-Patient Relationships: An Analysis of a Finnish Diary, 1851–1852

*Evelina Wilson*

5 January, 4:30 a.m.

Dinner: fresh perch and a glass of fresh milk.

Supper: Lutefisk with green peas and a couple of teacups of fresh milk.

From around 0:30 peaceful sleep until 1:30, then awake with severe pain in the whole thorax and epigastrium, which continued particularly troublesome, regardless of rubbing with chloroether and balsam, until 4:30, then spitting the usual amount (about a tablespoon), after which a little more tolerable, with interrupted sleep until 6:30, then after taking ipecacuanha, slightly better sleep until 9 o'clock. – Then fairly peacefully until 1 o'clock when troubled by tingling in the chest to the hips and the early urges to spit. – After 6 p.m. somewhat more tolerable until midnight.<sup>1</sup>



This was a diary entry in the early 1850s in which the writer recorded his symptoms, regimen and treatment, with particular attention given to those things he thought connected to the illness he was suffering from, and, to a certain degree, may seem obsessive to the casual observer. During his final year of life, he suffered from an illness that progressively worsened, causing him constant pain and undoubtedly a great deal of uncertainty about his future. He lived in a time when death from illness was commonplace and, having already experienced multiple losses in his close circle, he was well aware of what the outcome of the disease might be for him.

The diary demonstrates how, during the mid-nineteenth century, different medical theories were combined in the treatment of illness, hence the diarist's

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<sup>1</sup> Helsinki, National Library of Finland (NLF): Släkten Enebergs arkiv, Coll 50.1, *Sofia Enebergs dagböcker (1851–1852)* (hereafter NLF: *Eneberg Diary*).

mention of using syrup of ipecac, an expectorant and rapid-acting emetic, whose roots lay in classic humoralism. Also mentioned was medical rubbing, which was derived from the idea that illness was caused by too little or too much stimulus of the body. The writer also paid considerable attention to meals and sleep, which were a central theme for both his treatment and for the branch of medicine known as dietetics, allowing the physician to focus on the patient's lifestyle in an effort to cure the ailment. They were part of the so-called six non-naturals, which played a foundational role in medicine – both preventive and curative – up until the end of the eighteenth century. However, Eneberg is an example of how these age-old medical practices were still relevant to many, well into the nineteenth century. In addition to food and drink, sleep, and excretion, the non-naturals also encompassed air, exercise and rest, and emotions. Hippocratic writers defined them as the “basis of health management and disease”, and in order to maintain or restore health, these factors must all be kept in balance with one another. Galen was the architect of the six factors, which he called “categories of health”, and according to historian James Kennaway, they “provided the framework for understanding how lifestyle affected health.”<sup>2</sup>

The attention given to the six non-naturals can be viewed as a holistic way of looking at patients and disease. The term ‘holism’ was coined in the 1920s by Jan Smuts in an attempt to reconnect with past medical concepts and treatments, it also referred to the idea that “natural systems (e.g. physical, biological, or social, etc.) and their properties should be viewed not as a collection of parts, but as integrated wholes.”<sup>3</sup> It was not a term that physicians in the 1850s would have used, or their patients, but I find it describes the way both groups saw the sick as a psychophysical whole, where each patient's physical and mental condition, as well as their environment and way of life, were all factors considered in the treatment of disease. Valerie Michaelson and her colleagues have also pointed out the ancient roots of this holistic view on health going back to Plato, showing that the term ‘health’ is connected to and derives from the ancient Greek word for ‘wholeness’. It was only in the twentieth century

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- 2 James Kennaway and Rina Knoeff, “‘The Most Valuable Part of Medicine’. The Six Non-Naturals in the Long Eighteenth Century”, in: James Kennaway and Rina Knoeff (eds.), *Lifestyle and Medicine in the Enlightenment. The Six Non-Naturals in the Long Eighteenth Century* (London: Routledge 2020): 3–4, 6. See also Sandra Cavallo and Tessa Storey (eds.), *Conserving Health in Early Modern Culture. Bodies and Environments in Italy and England* (Manchester: University Press 2017).
  - 3 Valerie Michaelson a.o., “The History and Promise of Holism in Health Promotion”, in: *Health Promotion International* 34 (2019), no. 4: 826. See also Motzi Eklöf, *Läkare och läkekonster* (Stockholm: Carlsson 2010): 100–101.

that a holistic approach to the sick became less popular, as advances in scientific knowledge usurped the more traditional practices and the focus shifted to curing a specific part of the body or a specific disease, rather than the body as a whole.<sup>4</sup>

Such holism, with a focus on the non-naturals, though not necessarily with the same focus on all six, is evident in the majority of the diary entries studied here. In this article, I align myself with Jan Smuts' view on holism, a perspective on health and illness that considers both the physical and mental functions of the body, as well as how the environment and social background can influence health – either for better or for worse. In this context, I argue that the six non-naturals, as a foundation for the treatment of disease, is clearly a holistic approach in the treatment of the patient, and that humoralism is complimentary to this, as the idea that disease occurs through an imbalance or blockage in the bodily fluids is related to the core ideas that the non-naturals represent, and thus were intended to prevent or dissolve any potential blockages in the body. The aim of dietetics was thus to support the humoralist-view that health was based on the circulation of 'blood' and 'juices' within the body. If this circulation was hindered, the person fell ill and could ultimately die.<sup>5</sup> These ideas are also evident in the medicines chosen by Eneberg's physician, many of which were emetics or laxatives.<sup>6</sup>

The diarist's sole focus was his illness, and my purpose here is to analyse his descriptions and understanding of it and its causes. What symptoms did he mention? What treatment did he undertake? In what way do his descriptions speak of a holistic approach to health? And what, in his treatment, might indicate how his physicians dealt with therapeutic uncertainty?

It is assumed that the diary was written by the judge, Erik Gustaf Eneberg (1794–1852).<sup>7</sup> He and his wife Agatha Lovisa Gestrin (1796–1833) had three daughters, and the family belonged to the bourgeois elite in Turku in Finland

4 Michaelson a.o., "The History and Promise of Holism" (2019): 824–832.

5 Steven Shapin, *Never Pure. Historical Studies of Science as if It Was Produced by People with Bodies, Situated in Time, Space, Culture, and Society, and Struggling for Credibility and Authority* (Baltimore: John Hopkins University Press 2010): 296–297.

6 See, for example Michael Stolberg, "Keeping the Body Open. Impurity, Excretions and Healthy Living in the Early Modern Period", in: Kennaway and Knoeff (eds.), *Lifestyle and Medicine in the Enlightenment* (2020): 205–220; Annelie Drakman, *När kroppen slöt sig och blev fast: Varför åderlätning, miasmateori och klimatmedicin övergavs vid 1800-talets mitt* (Uppsala: Acta Universitatis Upsaliensis 2018).

7 In the archives of the National Library of Finland, the diary is catalogued under the name of Sofie Eneberg, the daughter of Judge Erik Gustaf Eneberg. She died at 26 from 'consumption', but there is no question of the diary having been hers.

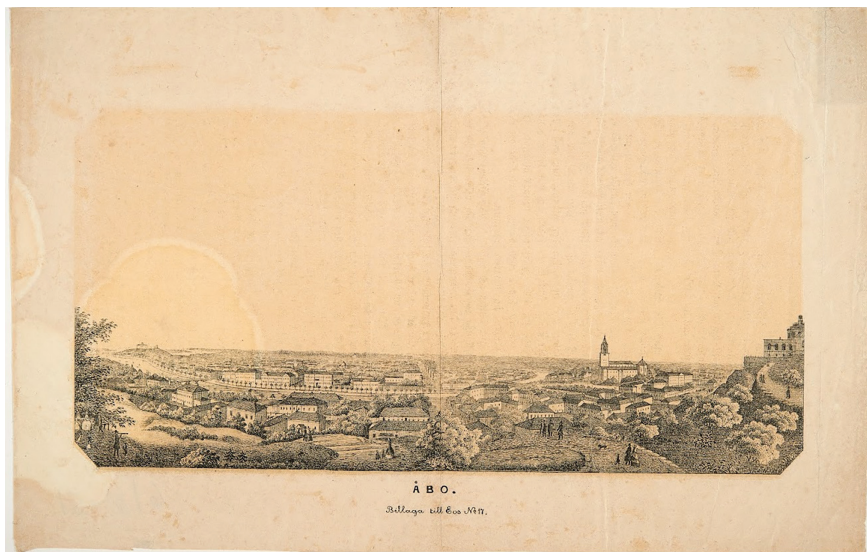


FIGURE 6.1 View of Turku in the 1850s, the city where Erik Gustaf Eneberg lived and worked. Lithography by Johan Jakob Reinberg.

SOURCE: HELSINKI, FINNISH HERITAGE AGENCY, HISTORICAL PICTURE COLLECTION, COLLECTION NUMBER HK19510506:1

(see Figure 6.1). There is nothing in the family archives to give us a contemporary insight into the Enebergs' lives, and the only information we do have comes from a family history of 1911, which notes that two daughters had both succumbed to consumption, Sofie from a "slow chronic consumption", and Augusta of "galloping consumption".<sup>8</sup>

In the last year of his life, Erik Gustaf Eneberg recorded the course of his illness in his diary. Every day, beginning on 17 September 1851 and ending on 10 July 1852, he wrote down his symptoms, treatment, medication, and the regimen that framed his day, with special attention to sleep, food, drinks and bowel movements. He also left a record of the treatment and the medicine he took. It is the detail that makes this diary especially interesting and valuable. Although his descriptions were otherwise devoid of his daily activities and did

8 NLF: Släkten Enebergs arkiv, Coll 50.1, *Redogörelse för familjen Eneberg*. The author of the family history was probably Eero Eneberg (Kivikataja). According to his niece Maria Envall-Koskimies (personal communication with the author, 6.5.2022), Eero Eneberg (Kivikataja) was the grandson of Erik Gustaf Eneberg's brother Isaac Reinhold Eneberg. For Eero Eneberg's diaries, see Eero Eneberg (Kivikataja), *Sattuva yksinpuhelu. Eero Kivikatajan päiväkirjat 1897–1945* (Helsinki: Marianne Koskimies-Envall 2021).

not offer personal reflections of any length, they do show how someone from the upper-classes with a serious long-term illness tried to shape his regimen in order to restore his health, or at least alleviate his symptoms, as well as what medical practices he relied upon.

## 1 The Diary and Its Author

In the eighteenth century, it had become fashionable among upper-class European families to keep diaries, though the exact formats varied, as did the reasons. Some were short, daily jottings, whilst others might be longer, more personal texts in the style of the new *journals intimes*. Some diarists wrote regularly for much of their lives, while others were prompted to write by a personal crisis.<sup>9</sup> For Erik Gustaf Eneberg, that crisis was his illness. We do not know if it was his only diary, though no others are known to have survived, and the folder in the archives holds only the diary and no other documents or memoirs. It consists of 112 bound sheets of paper arranged in two booklets, but without a cover, title, nor any indication as to the author.

Eneberg himself called the diary his *protokoll* or minutes, which says something about its style and how he viewed it: for him it was a tool, an aide-mémoire for the onset and progression of his illness. The diary had no personal reflections or descriptions of life, and mentioned no one other than himself, not even his daughters or other family members. We must read between the lines to gauge his feelings, which are mentioned only in passing. For the first few months it was reminiscent of a logbook, as he only recorded the number of times of “spitting” in a day, but gradually he added other information; descriptions of the pain he suffered from, what meals he had, his sleeping patterns, and of course the medicine and treatment he received. The medicines were not initially mentioned, which may suggest that Eneberg recorded his symptoms when they began to trouble him, purely for his own interest. Traditional medicine emphasized the connection between dietetics and health or illness, placing a significant amount of responsibility on the individual – each person was accountable for their own health, and by knowing your own constitution and by committing to a healthy regimen, you could, in a sense, be your own

9 Penny Summerfield, *Histories of the Self. Personal Narratives and Historical Practice* (London: Routledge 2018); Christina Sjöblad, *Min vandring dag för dag. Kvinns dagböcker från 1700-talet* (Stockholm: Carlsson 1997); Karoliina Sjö and Maarit Leskelä-Kärki, “Päiväkirja, minus ja historia”, in: Maarit Leskelä-Kärki, Karoliina Sjö and Liisa Lalu (eds.), *Päiväkirjojen jäjillä. Historiantutkimus ja omasta elämästä kirjoittaminen* (Tampere: Vastapaino 2021): 11–38.

physician.<sup>10</sup> In this context, the diary may also reflect Eneberg's efforts to take responsibility for his health by meticulously tracking everything that might contribute to his illness, in an attempt to identify what aspects of his regimen needed adjustment. Perhaps it was when, by looking back, and seeing the pattern of spitting and pain, that he was driven to seek medical advice, as he notes later in the diary of his dealings with two physicians, and it is clear that he shared his writing with at least one of them on at least one occasion.

Beginning on 10 December 1851, the diary entries become longer, and a few months later run to half a page of closely written text, sometimes a full page or more. From then on, the diary entries follow the same chronological order, covering each twenty-four-hour period from midnight to midnight. Perhaps it was at this point his contact with his physicians became more frequent, and what he noted down might have been decided by the information they asked of him and also by what he, from his own experience, knew to be important.

Eneberg graduated in the philosophical faculty in Turku in the autumn of 1815 and continued his studies in Uppsala where he obtained a doctorate in law in the summer of 1818. He was then appointed a district judge in 1820 and a clerk to the Court of Appeal in Turku in 1822, where he made a successful career, rising to Court of Appeal Judge in the spring of 1847, a position he held until his death in 1852. He received medals from the Russian emperor for "25 years of indefatigable service" in 1846, and for "2+ years of service" in early 1852.<sup>11</sup> He was obviously highly educated and, reading through the diary, it is clear that it was written in a clear hand and with good spelling. He had a good command of his native language, Swedish, which is clearly shown in his correct use of medical terms, referring to the chest as "the thorax" and the pit of the stomach as "the epigastrium", at that time unusual in amateur descriptions of disease, as medical terminology was generally only used by those well-educated.<sup>12</sup>

10 Roger Schmidt, "Wasted Days and Wasted Nights. Sleeping and Waking in the Long Eighteenth Century", in: Kennaway and Knoeff (eds.), *Lifestyle and Medicine in the Enlightenment* (2020): 190; Teresa Sanislo, "The Healthy Body, Civic Virtue, Gender and the New Physical Education in Germany, 1770–1800", in: Kennaway and Knoeff (eds.), *Lifestyle and Medicine in the Enlightenment* (2020): 139–160.

11 *Åbo Tidningar* (21.9.1852): 2; see also Yrjö Kotivuori, "Erik Gustaf Eneberg", *Ylioppilasmatrikkeli 1640–1852* (2005), <https://ylioppilasmatrikkeli.fi/henkilo.php?id=12283> (accessed on 6.2.2024).

12 Joan Lane, "The Doctor Scolds Me': The Diaries and Correspondence of Patients in Eighteenth-Century England", in: Roy Porter (ed.), *Patients and Practitioners. Lay Perceptions of Medicine in Pre-Industrial Society* (Cambridge: University Press 2002): 222; Michael Stolberg who has written an article on a seventeenth-century diary, similar to Eneberg's in the sense that it details an illness and the sick writer's regimen as well as the fact that the writer was an educated man of his time also points out the fact that educated people

As a document, the diary is invaluable, above all for its thoroughness. Eneberg's details complement other sources in which people described their experience of ill health and medical treatment. It fills many of the gaps which, in other material, are often lacking, for instance because the exact names of a medicine used, as well as the dosage, are not recorded. The descriptions of the symptoms in the diary are precise and include the time of day when they occurred. What is missing, however, are the physicians' voices. To make up for this absence, I have drawn upon both contemporary medical textbooks and literature from the European medical profession. It should also be borne in mind that this was one man's description, and it would be unwise to use it to draw a general conclusion, even though it provides an interesting insight into views on health and illness and its treatment in affluent circles in Turku in the 1850s.

## 2 Healing in the First Half of the Nineteenth Century

How do we understand the diary, and in what way can we learn from it? It is safe to assume that it reflected his physicians' views, albeit in Eneberg's words. The illness that Eneberg described, and above all its treatment, was the core relationship between him and his physicians, and what he diarised reflected thus their shared medical opinion as they knew it, as well as the shared perception on how to restore or, at the very least, tend to Eneberg's declining health.

In his diary, Eneberg adopted the role of the patient, thereby making his situation, his illness, comprehensible. By writing about himself and the course of his disease, he depicted himself as a "sick subject".<sup>13</sup> His narrative often referred to the physicians treating him (he identified two) and, because he quite possibly kept his journal in part for them, their views on disease, its causes, and its treatments were an important part of that narrative, as interpreted by Eneberg.

The physicians mentioned were "Wallenius" and "Bonsdorff". The first was probably August Wilhelm Wallenius (1795–1853), who was the city physician of Turku (the medical officer employed by the municipal authorities), and who was the same age as Eneberg.<sup>14</sup> The second was probably Evert Julius Bonsdorff (1810–1898), who had been professor of anatomy and physiology since 1846,

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(men) also read about medicine and discussed medical ideas. This was most likely also the case with Eneberg. See Stolberg, "Keeping the Body Open" (2020).

13 Summerfield, *Histories of The Self* (2018): 56–57. Summerfield gives examples of how diaries have been instrumental by their authors, including Patrick Joyce's analysis of a diary from 1847–1850 in which the male diarist used his narrative to picture himself as "a democratic subject".

14 Johan Edgren (ed.), *Finska läkaresällskapet, 175 år. 1835–2010* (Keuruu: Otava 2010): 123.

though he was based in Helsinki where the university had moved to after the Great Fire of Turku in 1827.<sup>15</sup> The nature of Wallenius' and Bonsdorff's collaboration is unclear, but it was not unusual for physicians to consult with one another about cases. The medical associations through which new methods, ideas, and discoveries were shared, were a crucial part of the professionalism within the medical profession that had accelerated during the eighteenth century. A key point to this was, that by sharing medical literature, including case studies, it enabled physicians to learn from their colleagues' experiences.<sup>16</sup> At one stage in the diary, Eneberg mentions that Wallenius had prescribed him a charcoal powder, and he later wrote of visiting Wallenius on foot.<sup>17</sup> Bonsdorff is referred to when Eneberg recorded having handed over his notes for "Professor Bonsdorff's consideration", and again a few days later when he "was forced to get up to meet Professor Bonsdorff".<sup>18</sup> From what we can ascertain from the diary, it seems that Wallenius was his personal physician and, being acquainted with Bonsdorff, consulted him in January 1852. This collaboration between the two physicians can certainly be seen as an attempt to manage the medical uncertainty over the case, as it was not uncommon that such partnerships existed during these times.

It was also not uncommon for physicians to communicate with their patients by letter, or to prescribe medicine and treatment in the same way. It was only towards the end of the nineteenth century that it became standard medical practice for physicians to physically examine patients, and in the mid-century their most important diagnostic tool was still their patient's own descriptions. It was important that patients detailed their symptoms and the course of the illness as accurately as possible.<sup>19</sup> This may have been another reason for the

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15 Edgren (ed.), *Finska läkaresällskapet* (2010): 124; Bertel von Bonsdorff, *Läkare och läkekunst i Finland under 300 år 1640–1940* (Ekenäs: Ekenäs Tryckeri Ab 1978): 41.

16 For examples of physicians collaborating in the early nineteenth century, see Evelina Knipström, *Hvad är vårt lif då hälsan saknas? Sjukdom och död i kvinnliga ståndspersoners korrespondens 1808–1852 i Finland* (Unpublished master dissertation) (Helsinki University 2015). For the medical community, see, for example, Elina Maaniitty, "Befolknings- och folkhälsofrågornas framväxt och läkarnas förändrade yrkesbild i Sverige på 1700-talet", *Historisk Tidskrift för Finland* 105 (2020), no. 4: 365–391.

17 NLF: *Eneberg Diary* (16.2.1852, 21.5.1852).

18 NLF: *Eneberg Diary* (7.1.1852, 10.1.1852).

19 Shapin, *Never Pure* (2010); Barbara Duden, *The Woman Beneath the Skin. A Doctor's Patients in Eighteenth-Century Germany* (Cambridge Mass.: Harvard University Press 1991); Roy Porter, "What is Disease?", in: Roy Porter (ed.), *The Cambridge History of Medicine* (Cambridge: Cambridge University Press 2011): 84. Even though Porter argues that this only applied to the period before the nineteenth century, the Eneberg diary indicates that the practice lived on in Finland at least; Johanna Geyer-Kordesch, "Cultural Habits of

care in which Eneberg took in recording his symptoms and his treatment, on top of his sense of personal accountability for that treatment.

Wallenius was born in the 1790s and Bonsdorff in the early 1800s, so both lived through a period of great scientific and social change. Public interest in medicine had grown rapidly and, with it, the physician's status. Yet well into the nineteenth century, different medical cultures did co-exist and their methods and theories were combined by different medical practitioners – not only by educated physicians.<sup>20</sup> This probably also allowed physicians to distinguish themselves through both their knowledge and their methods. In the mid-eighteenth century, the first hospitals had been built in Sweden-Finland, and the medical profession embarked on a reorganisation in which physicians had an increasingly strong role, as well as a responsibility to win public trust. Medical science and surgery gradually merged, elevating the surgeons' reputation, whereas before they had ranked merely as artisans, far below the status of a physician. Both Wallenius and Bonsdorff received their doctorates in Turku. Scandinavian medical professionals had extensive international contacts, especially amongst their continental colleagues, and Bonsdorff is known to have studied abroad at least twice. Ideas spread from country to country at a rapid pace, and it is interesting to note that the world's first operation under ether anaesthesia was in England in late December 1846, and the first such operation in Finland was performed in 1847, less than a year later.<sup>21</sup>

The rise in a physician's social status, especially in the early nineteenth century, meant they moved in the same circles as their wealthier patients, who also paid for their services, unlike people from the poorer classes. A paying patient could in many cases expect better care and greater attention from their physician.<sup>22</sup> Eneberg could afford to pick and choose from the available physicians.

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Illness: The Enlightened and the Pious in Eighteenth-Century Germany", in: Porter (ed.), *The Cambridge History of Medicine* (2011): 187–188.

20 Karin Johannisson, *Kroppens tunna skal. Sex essäer om kropp, historia och kultur* (Stockholm: Norstedts 2013): 183–218.

21 Charlotta Wolff, "Kirurgerna och förnyelsen av läkarvetenskapen i Finland 1751–1850", *Historisk Tidskrift för Finland* 105 (2020), no. 4: 470–496; Lindsey Fitzharris, *The Butchering Art. Joseph Lister's Quest to Transform the Grisly World of Victorian Medicine* (New York: Scientific American 2017); Yrjö Kotivuori, "Evert Julius Bonsdorff", *Ylioppilasmatrikkeli 1640–1852* (2005), <https://ylioppilasmatrikkeli.fi/henkilo.php?id=14213> (accessed on 20.7.2022); Anto Leikola, "Bonsdorff, Evert Julius", *Kansallisbiografia* (Studia Biographica 4) (Helsinki: Suomalaisen Kirjallisuuden Seura 1997), <http://urn.fi/urn:nbn:fi:skskbg-003147> (accessed on 20.7.2022); von Bonsdorff, *Läkare och läkekonst i Finland under 300 år* (1978): 17–25.

22 Jessica Parland-von Essen, *Affärer, allianser, anseende. Konsten att tillhöra eliten i Helsingfors ca 1740–1820* (Helsinki: Schildts 2010): 128–129.

He moved in the same circles as them because of his university background and could afford to pay for a physician to make house calls. That Eneberg and Wallenius belonged to the same generation and had similar backgrounds may have meant they were already acquainted, and certainly made it even more likely that they shared the same values and approach to health and illness.

### 3 Eneberg's illness

What exactly Eneberg's illness was thought to be is never revealed to us, as we do not have the physicians' records or access to the oral communication between them and their patient. The accounts in the family archives, the obituary in *Åbo Tidningar*, and his diary reveal nothing.<sup>23</sup> Eneberg himself only referred to his condition as "the illness", or sometimes the "devilry". Historian of ideas Karin Johannisson emphasised the importance of understanding illness as coloured by the period and the context in which it was experienced.<sup>24</sup> Swedish scholars have especially adopted this perspective, among them Johanna Bergqvist Rydén, who uses the term "sociocultural" in her analysis of both illness and the work of physicians in the medieval Realm of Sweden, stating that illness, body, and culture are all interrelated, and that "the practice of medicine in different cultures results from these encounters between body and culture." Thus, in analysing the experience of illness one cannot separate the cultural sphere from the social sphere.<sup>25</sup> More recently, Rob Boddice has expressed a very similar idea regarding the experience of pain – and the most distinctive aspect of Eneberg's symptoms was indeed pain. According to Boddice, the experience of pain is also connected to context and culture, and thus changes over time.<sup>26</sup> However, it is a worthwhile exercise to attempt a retrospective diagnosis in order to gauge the context and content of Eneberg's treatment.

Among Eneberg's immediate family, his wife and two of his daughters are known to have died of consumption, a disease today thought synonymous with pulmonary tuberculosis. Consumption was one of the diseases that defined the nineteenth century in Europe, as Carolyn A. Day has stated, it was "always

23 See *Åbo Tidningar* (13.8.1852): 2 and (21.9.1852): 2, and also his obituary in *Bihang till Åbo Underrättelser* (20.8.1852): 1, *Åbo Underrättelser* (1.10.1852): 4, *Finlands Allmänna Tidning* (5.10.1852): 4.

24 For example, Johannisson, *Medicinens öga* (2013).

25 Johanna Bergqvist, *Läkare och läkande. Läkekonstens professionalisering i Sverige under medeltid och renässans* (Lund: Lund University 2013): 25–26.

26 Rob Boddice, *Knowing Pain. A History of Sensation, Emotion, and Experience* (Cambridge: Polity Press 2023).

present, in all classes at all times". Its epidemic curve peaked around the middle of the century. The disease was well-known to both laymen and physicians who were all well aware of its deadly nature, but it was not until after Robert Koch managed to identify the *Mycobacterium tuberculosis* bacillus in 1882 that physicians were able to begin determining the disease's cause, diagnosis and treatment.<sup>27</sup>

Rather than tuberculosis, the term which became common at the turn of the twentieth century, I have chosen to refer to the disease in the same way as Eneberg's contemporaries at the time, that is *lungshot* or consumption. However, we cannot assume that what the Eneberg family referred to as consumption in the 1850s was necessarily the equivalent to tuberculosis today, as there were still no guarantees in obtaining a reliable diagnosis. Descriptions of the symptoms and of diseases have changed over time, if only because they reflected the knowledge and worldview of those times, making them difficult to interpret and understand in other periods and in other places. Mary Lindemann states that the diagnosis and description of disease was determined by the understanding of what it was, how it existed, how it functioned in the body, what caused it, and how it could be cured, so whatever our understanding of the disease may be today, we cannot use that diagnosis to determine diseases in the past with any certainty.<sup>28</sup> What we can attempt to do is to follow the course of an illness in its original, lived context. For my purposes, it is not the diagnosis which matters, but rather how Eneberg tried to treat his disease in consultation with his physicians, and what we can learn about the way his physicians managed their therapeutic uncertainty when treating him.

In April 1852, Eneberg noted that he had been sick for over eighteen months, meaning that the illness had begun in the autumn of 1850.<sup>29</sup> It is not known when he first saw a physician, but he probably contacted Wallenius no later than in the autumn of 1851. It is equally likely that he had seen other physicians before that, or at least had relied on his friends and acquaintances for advice. The symptoms he described were those associated with consumption. The clearest signs were the coughing up of sputum (what he called *uppspottningar*

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27 Carolyn A. Day, *Consumptive Chic. A History of Beauty, Fashion, and Disease* (London & New York: Bloomsbury 2017): 2, 7–8, 12; the cause of death for Eneberg's wife and daughters is mentioned in NLF: Släkten Enebergs arkiv, Coll 50.1, *Redogörelse för familjen Eneberg*.

28 Mary Lindemann, *Medicine and Society in Early Modern Europe* (Cambridge: University Press 2010): 31–32; Anne Kveim Lie has also shown how the classification of diseases has differed and changed over time, see Anne Kveim Lie, "Naming and Classifying Diseases in the Eighteenth Century", *Arv – Nordic Yearbook of Folklore* 72 (2016): 61–84.

29 NLF: *Eneberg Diary* (12.4.1852).

or spitting) and the pain in the upper body which, from the spring of 1852, was increasingly focussed between the shoulder blades. He did not mention having a cough (“hosta”), even though spitting would have been preceded by a coughing attack, so it is thus unclear whether he thought of coughing as part of that symptom or not.

Tuberculosis is an insidious disease, as it can go into remission and give the impression that it has been cured. Abraham Bäck, one of Sweden's most prominent physicians in the eighteenth century, wrote a treatise on consumption and spent much of his career trying to understand the disease that claimed the lives of several members of his family and those within his circle of friends. He believed there was a distinction between a preliminary stage, which he defined as a disease in its own right and which he was certain could be cured, and a full-blown, incurable stage.<sup>30</sup>

For physicians who practised before the advent of modern medicine, trust was everything. It was considered the most important attribute of a successful physician.<sup>31</sup> It centred not on the treatment per se, but on a solid, trustworthy relationship between physician and patient. Much of it relied upon the two parties sharing a mutual understanding of disease and the same medical culture. Steven Shapin has argued that this medical culture was largely based on the common sense of the time.<sup>32</sup> I see this as the knowledge of health and illness that existed within a specific timeframe, and which was passed on between individuals from generation to generation, what Peter Berger and Thomas Luckmann refer to as the “social stock of knowledge” – the collective body of knowledge within a group that significantly shapes the group's everyday life, including the routines built upon this knowledge.<sup>33</sup> Physicians of course did possess significantly more medical knowledge due to their training, and it was a matter of course that they should assert their expertise by other means than those known to the patients. Historian Saara-Maija Kontturi has shown how important it was for a physician to maintain the facade of the knowledgeable physician, standing for “proper” medicine.<sup>34</sup> At the same time, their shared vision was a cornerstone in the patients' trust: it was something

30 Thomas Ihre, *Abraham Bäck: mannen som reformerade den svenska sjukvården* (Stockholm: Bokförlaget Atlantis 2012).

31 Eklöf, *Läkare och läkekonster* (2010): 119.

32 Shapin, *Never Pure* (2010): 289–293.

33 Peter Berger and Thomas Luckmann, *The Social Construction of Reality. A Treatise in the Sociology of Knowledge* (London: Penguin Books 1991): 56–61.

34 Saara-Maija Kontturi, “Läkande, botande och bilden av den kompetenta medicinaren i de finländska läkarnas årsberättelser 1769–1856”, *Historisk Tidskrift för Finland* 105 (2020), no. 4: 497–516.

they understood, and which seemed logical. As long as the physicians' methods did not deviate from the shared traditions that the public understood, it was easy to put one's faith in them.<sup>35</sup>

#### 4 Pain and Other Symptoms

Pain appeared to be the defining element in Eneberg's disease, since he related everything to its waxing and waning. It was the pain that seemed to define everything about the illness for him, and it was pain he noted in greatest detail: the exact time, when it eased, and the onset of the next attack. He also wrote down when various medicines brought no relief, or even worsened the pain, and when he was given another medicine instead. This suggests that the pain was the most immediate target of the physicians' interventions, perhaps it was specifically the pain Eneberg sought a remedy for, and which the physicians actually believed they could do something about.

At first, the pain was mainly in Eneberg's chest or in the pit of his stomach, but often also in the lower abdomen. The abdominal pain often increased after a meal, which he duly noted down. In the spring of 1852, it was increasingly confined to his upper back, leaving him increasingly exhausted. His other symptoms were heartburn, tenderness behind the ears, and abundant salivation.<sup>36</sup>

The experience of pain is personal. Joanna Bourke, who has studied pain in history, stresses that an individual who says they are in pain should always be taken at face value. It is their reality. She notes that how pain is described is important, as the person then "becomes or makes herself into a person-in-pain." Bourke adds that pain is a fact of life, and because it is something we will all experience or see in others, it "participates in the constitution of our sense of self and other."<sup>37</sup> Although pain is experientially bound to its social and cultural sphere, and equally to the knowledge and worldview of the person in pain, it is nevertheless a constant, having existed in all periods and cultures. Boddice also agrees on this: every pain experience is personal.<sup>38</sup> This can be attributed to all illnesses as well. Carolyn A. Day states that because illness is both a "subjective experience" and connected to its cultural and social context, it "reflects the intricate mix of circumstances that define life and social value,

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35 Shapin, *Never Pure* (2010): 292.

36 For example, NLF: *Eneberg Diary* (6.10.1851, 10.1.1852, 23.6.1852).

37 Joanna Bourke, *The Story of Pain. From Prayer to Painkillers* (Oxford: University Press 2017): 5.

38 Boddice, *Knowing Pain* (2023): 3, 204.

as well as its own significance in a given time.”<sup>39</sup> How Eneberg defined his illness or pain is not stated in his diary, but how he chose to treat it reflects the time and cultural context in which he lived. It is therefore also important to consider Eneberg’s purpose in seeking medical consultation: was it really to cure the illness, or simply to alleviate its symptoms? He had already witnessed his wife and one of his daughters succumb to tuberculosis. Despite this, did he believe he could be cured, or was his aim rather to seek treatment and, at best, mitigate the pain and the coughing up of sputum? When reading the contemporary Irish physician Francis Hopkins Ramadge’s book on consumption, translated into Swedish in 1839, it is not clear how he defines a cured consumption, because a cured consumption could, according to him, mean the physician had managed to make it “chronic”. He also stated that what he always focussed on most was to put an end to the “symptoms of the hectic fever”.<sup>40</sup>

Methods of anaesthesia were new, but some efficient painkillers – notably opium – had been used for centuries.<sup>41</sup> The reasons for the physicians’ prescriptions were not spelled out in Eneberg’s diary, but they do seem to have been used to ease the pain. Two of them, digitalis and prussic acid, were certainly items that could specifically be used against the pain or the cough. Other treatment that Eneberg received may have also been attempts by his physicians to relieve the pain by strengthening the flow, balance, or circulation within the body. Hopkins Ramadge wrote that he did not advocate any attempt to alleviate the cough, because it would result in an “emphysematous condition” in the lungs.<sup>42</sup>

Bourke notes that the nineteenth-century physician Peter Mere Latham chose to describe pain with a capital P, as something independent and identifiable in the body.<sup>43</sup> Eneberg certainly described his pain in a way that chimed with Latham’s opinion. He wrote of it moving through his body, from one part to another. It was always there. Rarely relenting, it changed form, going from “tingling” to “stabbing”. It often disturbed his sleep or stopped him from sleeping altogether. When it was bad, he would lie down with his chest pressed into the sofa to relieve it, and at its most unbearable it prevented him from reading or smoking.<sup>44</sup>

39 Day, *Consumptive Chic* (2017): 3.

40 Francis Hopkins Ramadge, *Ny och säker läke-method för lungshot, eller framställning af ett enkelt satt, att läka denna hittills såsom obotlig ansedda sjukdom, bekräftadt af en mängd erfarenhets-rön* (Uppsala: Lundequist 1839): 46.

41 Karin Johannisson, *Kroppens tunna skal* (2013); Bourke, *The Story of Pain* (2017).

42 Hopkins Ramadge, *Ny och säker läke-method för lungshot* (1839): 59–60.

43 Bourke, *The Story of Pain* (2017): 1–5.

44 On 2 March 1852 he noted his attempt to lessen the pain by lying with his “chest against the sofa seat”, which helped after about 15 minutes. On 27 March 1852 he recorded he had

Another symptom that Eneberg focussed on was his coughing up of phlegm. He described the time of day, how often in a day, and how much he coughed up – often as much as a tablespoon of sputum. Something that he linked to his “suffering”, and which seems to have caused much pain, was what he called “a prodrome of spitting”, an early symptom indicating the onset of coughing up of phlegm.<sup>45</sup> On 10 April 1852, he writes of doing this “after rather painful preliminaries”, clearly indicating the amount of suffering involved. After any lengthy period where the coughing up of sputum had relented, he seemed even more disturbed when it returned, perhaps because he had begun to feel hopeful that at least this symptom had disappeared, or even that the illness was in retreat? For example, when it resumed on 18 May 1852 after a four-week break, his diary entries were peppered with swearwords – “damned spitting”.<sup>46</sup>

It is not always certain what he meant by spitting. Since he was also prescribed emetics, he might possibly be referring to vomiting, but since the amounts he described were so small and he often described it as a clear liquid, sputum is the more likely option. In Hopkins Ramadge’s medical textbook of 1839, one of the leading symptoms of consumption was given as “spitting”, it then being the standard term used.<sup>47</sup> Eneberg’s pain had a great impact on him and his life, to the point where it came to define him. Physical symptoms were what physicians had to go by when determining a diagnosis, and different symptoms could also define diseases. Since Eneberg’s illness was not localised, the treatment required a holistic approach in both senses, thus a combination of medication targeting the pain, as well as efforts to keep a strict regimen to correct the underlying cause seemed the correct and natural approach.

## 5 Bodily Fluids

Most of the treatment and the doses recorded in the diary concern “excretion” and “retention”, and Eneberg pays great attention to the function of his bowel movements. The medicines were regarded as supplementary to dietetics, rather than the primary focus. They complemented the dietary regimen, primarily by aiding bowel movement. The principal aim was to strengthen the body and maintain health through proper living. In treating disease, the approach combined medicinal intervention with other treatment that supported healing,

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“no thought of smoking tobacco or reading” because of the pain. See, NLF: *Eneberg Diary* (2.3.1852, 27.3.1852).

45 For example, NLF: *Eneberg Diary* (1.4.1852).

46 For example, NLF: *Eneberg Diary* (11.4.1852).

47 Hopkins Ramadge, *Ny och säker läke-method för lungshot* (1839): 12–16.

often by encouraging bodily functions such as fluid circulation. Michael Stolberg has pointed out that “freeing the body of superfluous and potentially harmful matter”, was “seen as fundamental to health”.<sup>48</sup> This is evident in Eneberg’s case, where the emphasis was specifically on improving and sustaining bowel movements. The Swedish historian Annelie Drakman calls this brand of humoralism “flow-managing” medicine.<sup>49</sup> The two types of medical treatment in Eneberg’s diary were medicine and eliminatory or circulatory treatment, directly linked to humoralist ideas or to the theories of excitability. The medicine used mainly consisted of various plants or herbs, including sarsaparilla, cherry laurel (“laurocerasus”), gum kino, belladonna, ipecacuanha, tincture of rhubarb, and peppermint water, occasionally combined in powder form, as was the case with belladonna and rhubarb. But he was also prescribed “burbot liver oil”, “powdered charcoal”, “iron pills”, and several types of mineral water. The diary did not say why, but they were all common treatment at the time, and I will return to them later.

The pattern of medication was the same throughout the diary. Eneberg noted in the margin when he began a new course of medicine, whilst at the same time as a new one was started, he stopped taking the previous one. He took the majority of courses for only a few days, and his symptoms either remained the same or, occasionally, improved for a period of time. Eneberg always made an entry in his diary when his symptoms began to worsen again, and then he would begin a new course of medication. If nothing else, it indicates that he was in close contact with his physicians. It is tempting to think that Eneberg’s experience with a new medicine was simply a placebo effect. However, we must remember that we cannot be certain how Eneberg considered what was a positive outcome from the treatment. If the goal was to improve circulation and remove blockages, then effective bowel movements may have been regarded as a desirable result by both Eneberg and his physicians.

Nonetheless, pain relief was likely still the primary focus. In my mind however, the wide variety of medicines Eneberg was prescribed with was not “chaotic” medical practice, as Johannisson would have characterised it, but rather a way for the physicians to systematically test the medicines for their effectiveness.<sup>50</sup> It was not that physicians lacked skill or used medicine or methods haphazardly; they had seen certain methods and drugs help, but did not yet know why that was so in some cases, but not in others. Experience also told against uncertainty, so trying various remedies for different ailments can also

48 Stolberg, “Keeping the Body Open” (2020): 212.

49 Drakman, *När kroppen slöt sig och blev fast* (2018): 19, 34.

50 Johannisson, *Medicinens öga* (2013): 30.

be seen as the way physicians managed that uncertainty. Even if they lacked a cure for the underlying cause of the illness, they knew various methods to alleviate the symptoms. They also prescribed fish oil and iron pills, as mentioned earlier, which were believed to strengthen the body and enable it to heal itself. Hopkins Ramadge also believed strongly in dietetics, stating in 1839 that medicine could only provide the patient relief or allow management of the disease.<sup>51</sup> This could suggest that Eneberg's physicians also used medicines in the same way.

It is not immediately obvious from the diary what the physicians prescribed, nor what Eneberg's wishes were. Of course, Eneberg belonged to the elite and was able to pay the physicians for any treatment they offered, whereas those belonging to the poorer classes could not. This allowed a situation where the physician would prescribe a certain course of medication simply because the patient demanded it, or because his friends and family had recommended it.<sup>52</sup> It is impossible to say with absolute certainty, simply because we do not have access to the physicians' own thoughts on Eneberg's illness and treatment.

The frequent change of medication may have been driven by therapeutic uncertainty, but it could also have been the typical method that these physicians regularly followed. As long as a patient knew that the physician would try every conceivable option, there was hope, and as long as there was hope, the patient would not consider switching physician. Of course, there was always the possibility that the physician could give the impression that he knew what he was doing, even though that was not always the case. In terms of Eneberg's illness, we do not have the physicians' notes on the course of treatment, so we are unable to make a judgement. Without doubt, competition was a factor, and if Eneberg had wished to try a certain medicine, or had been recommended something by a friend, the physician would certainly have known that if he did not acquiesce, it would certainly have been available from another doctor. Alternatively, regarding the relationship between Eneberg and his physicians, perhaps the collaboration that existed between both parties allowed them to address their medical and therapeutic uncertainties, which can be seen as a strength, as it may have allowed a greater willingness to experiment with different therapies and medicines, and permitted Eneberg to have a greater say in the treatment that he received.

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51 Hopkins Ramadge, *Ny och säker läke-method för lungсот* (1839): 58.

52 Edward Shorter, "Primary Care", in: Porter (ed.), *The Cambridge History of Medicine* (2011): 103–105 writes of patients going to the physician with preconceived ideas of what they might need.

Early in the diary, Eneberg noted a course of ipecacuanha (*Carapichea ipecacuanha*), popularly called *kräkrot* (lit. vomit root). He was also prescribed *kräkvinsten* or tartar emetic. As emetics, their job was to make the patient vomit – part of the strategy to maintain the flow of the bodily fluids, or to improve circulation, as well as to act as the correct form of stimulus to the body. Steven Shapin has studied the eighteenth-century Scottish physician George Cheyne, who believed that patients should vomit because of the “exercise” it gave to the entire body.<sup>53</sup> In other words, it contributed purely mechanically to the body’s movement and circulation. Eneberg, however, did not speak about vomiting, but only about spitting, and Hopkins Ramadge recommended emetics in his medical textbook, though in very small quantities, so as to induce nausea, not vomiting.<sup>54</sup> It seems probable therefore, that this was how Eneberg’s physicians went about prescribing emetics.

By far the most common treatment in Eneberg’s case were laxatives, which may seem strange as with very few exceptions, he noted at least one “movement” a day, often describing both the consistency and quantity of the stool as “good”. Of course, the medical profession did not empty patients of fluids randomly, rather it saw the body’s own excretions as a good sign that it was successfully healing itself, therefore it simply used purgatives to help it along.<sup>55</sup> It followed along the philosophy of the non-naturals and, according to Stolberg, it was “the regular and sufficiently copious excretions [which] were crucial for health behaviour of people from all walks of society.”<sup>56</sup> This was part of common medical knowledge, shared by both practitioners and laymen. In Eneberg’s case, the assumption is that the physicians gave Eneberg laxatives to maintain defecation and so enable self-healing. Of all the medication he took, purgatives were the one constant that he took continually throughout the period of his diary. A range of laxatives and enemas which were mentioned include castor oil, aloe, and rhubarb which had known laxative properties, a “visceral enema, with a teaspoon of table salt”, a “standard enema”, a “cold-water enema”, a “soap enema”, and an “enema with salt” (see Figure 6.2),<sup>57</sup> and from the entry of 21 June 1852, despite his suffering, we are amusingly introduced to a “Madame Enema” who “arrived” at 6:30 in the morning to administer the medication.

53 Shapin, *Never Pure* (2010): 301–302.

54 Hopkins Ramadge, *Ny och säker läke-method för lungsot* (1839): 58.

55 Drakman, *När kroppen slöt sig och blev fast* (2018): 58–59.

56 Stolberg, “Keeping the Body Open” (2020): 206.

57 For example, NLF: *Eneberg Diary* (30.6.1852, 28.6.1852, 2–8.7.1852).



FIGURE 6.2 Japanned metal enema syringe, piston action, with reservoir, 1831–1870.  
SOURCE: LONDON, SIR HENRY WELLCOME'S MUSEUM COLLECTION, OBJECT  
NUMBER A606386 PT1. ALL RIGHTS RESERVED FOR THE DAILY HERALD  
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Of all the medication that Eneberg tried, mineral water was surprisingly what helped him the most, especially Emser Kränchen water. Indeed, Eneberg referred to it as “medicine”,<sup>58</sup> for when he drank it, he felt that “the pains noticeably lessened”.<sup>59</sup> However, even that stopped working after only a few days, though considering how little Eneberg drank, compared to what he recorded eating – heavy food with a great deal of salted meat – the mineral water may have eased his stomach pains a little, but only temporarily.

Various mineral waters were believed to have their own special properties and helped different ailments. In Eneberg's case, in the year that he kept the diary, he had three courses, each consisting of a different mineral water. The first course used water from Fachingen, followed by one from Ems, and then finally a sample from Kissingen. The use of mineral water went hand in hand with the fashion for “taking the waters” in spa towns. In the first half of the nineteenth century, spas had become the middle classes' health destination of

58 NLF: *Eneberg Diary* (25.6.1852).

59 NLF: *Eneberg Diary* (23.6.1852).

choice, having previously been the preserve of the aristocracy. By the mid-nineteenth century, baths had also become an increasingly important element in this culture, with several different kinds of baths introduced.<sup>60</sup>

Thus, in addition to drinking mineral water, Eneberg also bathed and took foot baths, both being designed to make him sweat or increase the circulation within the body.<sup>61</sup> The water Eneberg drank at home fell into the category of “artificial mineral water”, which in the nineteenth century was sold in bottles, making it more accessible for those who could not physically go to a spa, but could still enjoy the health benefits at home.<sup>62</sup> Eneberg took each of the prescribed cures at home in the shape of four glasses a day, as seen in his entry for 21 June 1852. On this occasion, he drank only three glasses of Ems water instead of the four prescribed “because the bottle held no more”. From the same entry it was clear that the water was heated and then allowed to cool before he drank it.

When Eneberg was in severe pain he turned to rubbing for relief, sometimes with liniment or sometimes without.<sup>63</sup> It is not known whether he rubbed the afflicted area himself or if someone else did it for him, but at times he did mention “the Lindgren woman”, who probably looked after him and who may have been there to help in administering some of the treatment. Rubbing was a common treatment for illness, as well as being used to promote the circulation of fluids within the body.<sup>64</sup>

## 6 Dietetic Factors

Alongside the descriptions of pain and other symptoms, Eneberg’s other main focus was food. Food was considered crucial to health. The minutiae of what one ate and drank was considered by some physicians to be of utmost importance: eat and drink the correct things and the bodily fluids would circulate unhindered, and the result would be good health, while the wrong food or drink could create blockages in the body.<sup>65</sup> Broadly speaking, “strengthening”

60 Elisabeth Mansén, *Ett paradys på jorden. Om den svenska kurortskulturen 1680–1880* (Stockholm: Atlantis 2001): 48–49; Kai Häggman, *Perheen vuosisata. Perheen ihanne ja sivistyneistön elämäntapa 1800-luvun Suomessa* (Helsinki: WSOY 1994): 75–77.

61 For example, NLF: *Eneberg Diary* (7.1852).

62 Mansén, *Ett paradys på jorden* (2001): 315–316.

63 For example, NLF: *Eneberg Diary* (18.11.1851, 11.12.1851, 1852).

64 Drakman, *När kroppen slöt sig och blev fast* (2018): 49, 51–52, 69, 213.

65 Shapin, *Never Pure* (2010): 296; David Gentilcore, *Food and Health in Early Modern Europe. Diet, Medicine and Society, 1450–1800* (London & New York: Bloomsbury 2015): 1, 27–30;

food was thought important when treating consumption. This may have been the reason for Eneberg's concentration on his food. The medical opinions that he shared with his physicians recognised food's importance, amounting to what he himself saw as common sense. It also explained why he wrote down such brief reflections and comments on a meal or its composition. He often treated food as a possible cause of his worsening symptoms. Physicians also put great weight on dietetic factors in their prescriptions, as is evident in Steven Shapin's work on the topic, albeit in the eighteenth century, but nevertheless showing the enduring importance of dietetic factors.<sup>66</sup>

Eneberg ate the same number of meals every day: breakfast, dinner (what he called *middag* in the middle of the day), and supper in the evening. He noted down everything he ate and drank in his diary, and how he felt after each meal. Breakfast was almost always "coffee and rusks", while dinner and supper tended to be similar, with either fresh fish (mostly perch, herring, or pike) or meat (roast or heavily salted), served with porridge, gruel, or kissel (a berry soup). For dinner on 31 March 1852, for example, he had cold roast beef with "a little salt meat and barley gruel", and for supper "cold roast beef and barley porridge and fresh milk". Whenever Eneberg was not taking a course of mineral water, he drank fresh milk with his meals, or sometimes ölost, a mix of milk and beer, or a small beer.

Food was generally seasonal. It was also standard to eat two larger meals and one smaller in a day, though the arrangements could vary from family to family. In other words, Eneberg's mealtimes were in line with what was customary at the time. What was different about his diary was his sheer focus on *what* he ate. With regard to Swedish and Finnish food traditions in the eighteenth and early nineteenth centuries, historian Johanna Ilmakunnas notes that it was usual for writers to mention *where* they ate and with whom – meals had a strong social aspect – yet they rarely recorded what they ate.<sup>67</sup> Eneberg's intense focus on his diet was another sign that meals and food were central to his medical treatment as a whole, and an acknowledged factor in physical well-being. He paid no attention to the social aspects of mealtimes, describing only the food, and this with careful accuracy. On 24 April 1852, for example, he recorded that at dinner he ate "a piece of cheese about the size of a coin".

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James Kennaway and Jonathan Andrews, "The Grand Organ of Sympathy", *Social History of Medicine* 32 (2019), no. 1: 57–79; Stolberg, "Keeping the Body Open" (2020): 207–208, 211.

66 Shapin, *Never Pure* (2010): 301.

67 Johanna Ilmakunnas, "Måltidsupplevelser i 1700-talets Sverige och det tidiga 1800-talets Finland", *Historisk Tidskrift för Finland* 100 (2015), no. 4: 453–483.

It does not seem that he linked *what* he ate to the state of his health, but rather the *amount*. He associated eating too much or heavy food with increasing pain, though occasionally also eating too little concerned him. On 10 January 1852 he noted that “whereupon, having taken perhaps a little too small a supper, felt tingling in the chest, which had subsided before, almost to more again; but the sensations in the epigastrium were thought more troublesome.” The following day, however, he connected “disturbed sensations in the stomach” to “perhaps a poor dinner”. He noted in the margin that it had been “fresh, perhaps overly fatty mutton”. On 29 March 1852, he noted “serious suffering in the thorax and stomach” that began after “too strong” a supper. Most often though, he linked pain to eating too much, as on 4 February 1852 when “unpleasant sensations” in the chest and “the middle of the thorax” followed a breakfast he believed was “in greater abundance (nearly two cups [of coffee] and four rusks) than was proper”. He did not change what he ate, other than taking his coffee in different ways occasionally (black or with skimmed milk instead of cream).<sup>68</sup> During a month in the winter of 1851–1852, he stopped eating supper altogether and went down to one meal a day, other than his morning coffee and rusks. It may have been for lack of appetite, but if so, he did not say. However, on 16 February 1852, he mentioned “starvation” as one of the cures he had tried. A diet with little food in which hunger was considered “the best medicine” is also mentioned by Shapin in his study of Cheyne’s treatments.<sup>69</sup>

Something else that Eneberg considered important was sleep. He noted the exact times when he fell asleep and when he woke up. He also took a daytime nap for about an hour. He recorded it all as best he could, so that on 5 March 1852 he added at the very end of the day’s entry, “NB About 50 to 60 minutes of extra slumber on the sofa took place between 10 and 11.15 in the morning,” giving the impression it mattered that he slept only a moderate amount. He often went to bed around ten o’clock or just before eleven, succumbing to sleep at around midnight. He usually got up at seven o’clock, though was often woken up just after six by “the fire being laid”. He slept poorly at night, many nights waking every hour and often being kept awake by the pain, so he usually spent the time “smoking tobacco and reading”.<sup>70</sup> It was only when his “torments” were at their worst that he was unable to either smoke or read. Smoking, mentioned only as a diversion, does not seem to have

68 For example, NLF: *Eneberg Diary* (13.2.1852).

69 Shapin, *Never Pure* (2010): 303.

70 On 9 June 1852, Eneberg wrote that he during his sleep that night he had been “swiftly interrupted, almost regularly, at every toll of the hour”, just as it had already been for “100 nights”. NLF: *Eneberg Diary* (9.6.1852).

been linked to his health or treatment. At the time, getting the right amount of sleep was considered crucial to maintaining good health, with the recommended duration being seven to eight hours. However, it was also believed that sleeping too much, particularly late into the morning, could be harmful. Physicians emphasised the importance of sleeping at the correct times, offering recommendations on the best times to go to bed at night and to wake in the morning. This focus on sleep aligns with Eneberg's meticulous tracking of his sleeping schedule.<sup>71</sup>

When the weather got warmer in the spring, he went for walks or for drives in his carriage. These outings were often on business. He dropped in at the Court of Appeal in Turku or visited his farm outside the city. Sometimes he went to auctions. There may have been a twofold purpose to all this, as it meant he could keep abreast of his work while also getting fresh air and exercise. Seen as part of the six non-naturals, these last two were also acknowledged as important for a healthy, balanced lifestyle. Aside from his meals, his sleeping patterns, his symptoms, and his digestion, Eneberg's excursions were the only other activities that he recorded in his diary, although strangely he mentions nothing about the air or the weather on these trips outside. Fresh air was accepted as beneficial to health and especially for those with lung complaints or thought predisposed to consumption. For consumptives, a regular change of air – and scene – was recommended as a preventative measure, and later, once consumption was a fact, as a cure. As Hopkins Ramadge observed, a change of air was “always” useful. He also believed that the place where one fell ill was the worst place for those who wanted to recover their health, which further justified the change of scene. Country air was thought best, and Eneberg's regular visits to his estates in Karveti were, as his other outings, not only a dietetic choice or a duty-bound necessity, but also a nod to the importance of “small trips” and a change of scenery and air for one with a lung disease.<sup>72</sup> Physical exercise, which in Eneberg's case meant walking, was regarded as healthy for those predisposed to consumption or with a lung complaint. Again, it was

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71 “That Venerable and Princely Custom of Long-Lying Abed: Sleep and Civility in Seventeenth- and Eighteenth-Century Urban Society”, in: Kennaway and Knoeff (eds.), *Lifestyle and Medicine in the Enlightenment* (2020): 163–183; Schmidt, “Wasted Days and Wasted Nights” (2020): 184–201; Sasha Handley, “Sleep-Piety and Healthy Sleep in Early Modern English Households”, in: Sandra Cavallo and Tessa Storey (eds.), *Conserving Health in Early Modern Culture. Bodies and Environments in Early Modern Culture* (Manchester: University Press 2017): 185–209.

72 For a change of air, see Hopkins Ramadge, *Ny och säker läke-method för lungsot* (1839): 30–32, which was published when he was a physician at the Infirmary for Asthma, Consumption, and other Diseases of the Chest in London.

also part of the six non-naturals, and walking was especially regarded as an essential part of the kind of exercise recommended for maintaining health.<sup>73</sup>

Travel abroad to countries with “better” air was a long-accepted treatment for consumption.<sup>74</sup> Eneberg did not write of any plans to make such a trip, though it is not known whether this was because his physicians advised against it (not all physicians agreed that traveling abroad was wise in every case) or because his finances prevented him from doing so. We do know that he was heavily in debt when he died,<sup>75</sup> but it should also be remembered that his duties at the Court of Appeal would have made it very difficult to be absent from Turku for any length of time.

It was in recording his dietetics that Eneberg left most indications of his own theories about his health, which – I would suggest – formed an important part of the medical knowledge, or medical common sense within his own circle. The very fact that Eneberg noted them down for the benefit of his physicians suggests that he too placed great importance on dietetic factors, as we know physicians did. The focus on dietetics also pushed some of the responsibility for health onto the individual. Dietetics was seen as an important way of improving people’s health. It was believed that not only did it prevent ill health, but it also had a moral implication. If the patient did not follow the ‘right’ dietetic rules, she or he was, in some way, responsible for their illness. Shapin argues that there is a parallel between the instructions followed by people in the eighteenth century regarding proper conduct and manners, and the guidelines pertaining to the maintenance and care of one’s health. What was beneficial for one’s health was also considered morally good – health and morality were intertwined. Moreover, by leading a healthy lifestyle, individuals became role models for others, further linking morality with health.<sup>76</sup>

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73 Hopkins Ramadge, *Ny och säker läke-method för lungsot* (1839): 32; James Kennaway and Rina Knoeff, “For It Is the Debilitating Fibres that Exercise Restores’. Movement Morality and Moderation in Eighteenth-Century Medical Advice Literature”, in: Kennaway and Knoeff (eds.), *Lifestyle and Medicine in the Enlightenment* (2020): 111–138; Marjo Kaartinen, “A Busy day With Me, or At Least With My Feet & My Stockings’. Walking for Health and the Female Pedestrian’s Spaces in Eighteenth-Century British Towns”, in: Elaine Chalus and Marjo Kaartinen (eds.), *Gendering Spaces in European Towns, 1500–1914* (New York: Routledge 2019): 32–45.

74 See also chapter 5 of this volume.

75 NLF: Släkten Enebergs arkiv, Coll 50.1, *Redogörelse för familjen Eneberg*; Excerpt from Eero Eneberg’s diaries obtained from Maria Envall-Koskimies (personal communication with the author, 6.5.2022), who owns the diaries and has published some of them, see Eneberg (Kivikataja), *Sattuva yksinpuhelu* (2021).

76 Shapin, *Never Pure* (2010): 260–261; Schmidt, “Wasted Days and Wasted Nights” (2020): 190; Sanislo, “The Healthy Body, Civic Virtue, Gender” (2020): 139–160.

The aristocracy were expected to lead by example, after all, they were the ones who had the means to follow dietetic rules.<sup>77</sup> In historian Kai Häggman's study of the Finnish bourgeoisie in the nineteenth century, it becomes clear that personal healthcare permeated everyday life amongst the upper classes.<sup>78</sup> It seems unlikely, however, that the physicians in Eneberg's case would have used the concept of morality or the patient's personal responsibility to conceal their own inadequacy as healers. Rather, I believe that dietetics was so familiar and so widely accepted that his physicians used it in their treatment of Eneberg because it was known by the patient and, to a certain extent, was something that Eneberg may well have thought he could influence or even control. Restoring Eneberg to health was in that sense a joint project, and fundamental to the physician-patient relationship. Dietetic factors also went hand in hand with the common sense in which both physicians and their patients relied on for their medical knowledge. It informed the physicians' handling of therapeutic uncertainty too, as they knew dietetic factors could either strengthen or weaken the body, and by changing a patient's dietetics for the better, would strengthen the body's own defences. Hopkins Ramadge was convinced that nature should be left to do its work, and the skill in medicine was in making it easier for the body and nature to work together.<sup>79</sup> Plainly, he knew he could never have full control of the process, but that he had faith in his ability to help the body heal itself. In this context, the dietetics – especially food, drink, excretion, sleep, exercise and air – was the foundation he relied upon.

## 7 Conclusion

What exactly Erik Gustaf Eneberg's goal was in consulting a physician we cannot be sure of – either the objective was to be fully cured, or it was to improve his condition to the point where he could continue his life as normally as possible. On 16 February 1852, he wrote that “despite all medication, all starvation

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77 In the foreword to his book, the physician Johan Haartman urged every person of rank to “strive for the knowledge to care for the noblest of possessions, Health, preserve it by correcting their unhealthy tastes and habits, and thus, in this regard, serve as a commendable model and example for the public.” Johan Haartman, *Tydlig Underrättelse om de Mäst gångbara Sjukdomars Kännande och Motande/Genom Lätta och Enfalliga Hus-Medel; Samt et litet Res- och Hus-Apothek; Dem til tjenst/ som ej hafwa tilfälle at rådfråga Läkare/ Med åtskilliga förätringar och tilökningar, Andra gången sammanfattad och utgifwen* (Åbo: tryckt hos Joh. Christoph. Frenckell 1765): 4.

78 Häggman, *Perheen vuosisata* (1994): 75.

79 Hopkins Ramadge, *Ny och säker läke-method för lungсот* (1839).

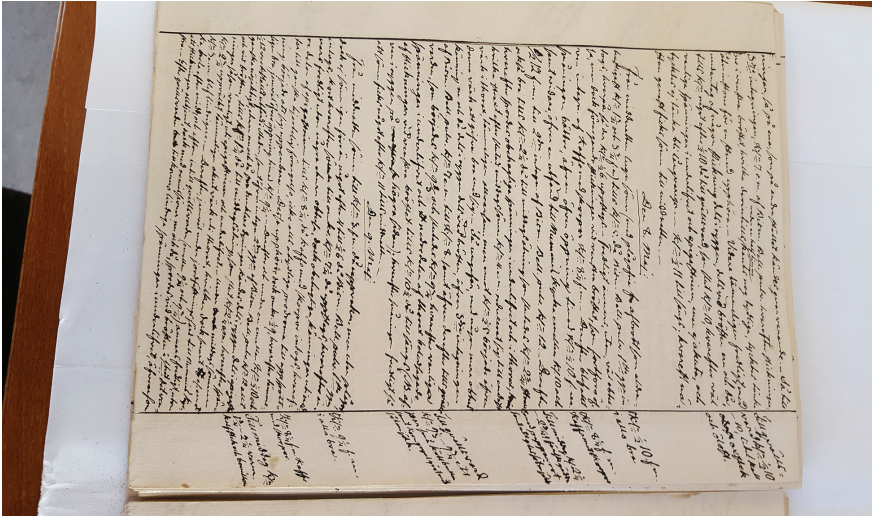


FIGURE 6.3 One of the pages of Erik Gustaf Eneberg's journal, or "protocol" as he called it himself. This page is from 8 May 1851.  
 SOURCE: NLF: *ENEBERG DIARY* (8.5.1851). PICTURE TAKEN BY THE AUTHOR

and other subjections and privations" his disease seemed to be "in the same deplorable condition in which it manifested itself at its worst moments in the latter part of the past year" (see Figure 6.3). It was one of the times when Eneberg's feelings – and frustration – shone through. As mentioned earlier, we need to remember that this was at a time when death by illness was commonplace in all walks of life, from childhood to adulthood. If Eneberg suffered from consumption, both he and his physicians knew that the illness was potentially deadly, a fact which they had all individually witnessed for themselves. Therefore, we cannot assume that what he regarded as a successful or unsuccessful in his treatment, aligns with how we would interpret it today.

There can be little doubt that he was making every effort, willing to try any cure that might help, yet there was also a sense of resignation and perhaps a dwindling faith in his physicians. His growing scepticism is clear in his diary entry concerning a bath "which produced some slight perspiration, but what other good it did is as yet unknown."<sup>80</sup> Doubts or not, Eneberg never changed his physicians, or at least did not mention doing so at any stage before 10 July 1852, when the diary finally ends. It seems his physicians, Wallenius and Bonsdorff, managed to maintain his confidence, even when at times it waned.

80 NLF: *Eneberg Diary* (16.2.1852).

Whatever illness it was that Eneberg suffered from, the physicians' treatment and knowledge did not prevail. Their own voices are not recorded in the diary, but presumably they too experienced uncertainty or frustration when their attempts did not produce the desired effect. Consumption was incurable, as they were well aware, but at the same time it was not always a clear diagnosis. Hopkins Ramadge, for example, was not the only physician to publish textbooks about its cure in the mid-1800s. The Swedish royal physician Abraham Bäck was convinced consumption had a preliminary stage, and if caught in time the patient could be cured, though if it progressed further, there was no hope. Did Eneberg's physicians think he was at the preliminary stage? Bäck was one of the leading physicians in Sweden well into the late eighteenth century, and it is likely that Wallenius, who was trained in the early nineteenth century, had been influenced by Bäck's theories. There was nothing in the diary to suggest Eneberg's physicians said anything to dispel his hopes of a recovery. Kontturi concludes in a study of the "image" of physicians that they rarely admit their mistakes, and on the occasions when they do fail, it is usually presented as not their fault, but rather the disease was simply incurable.<sup>81</sup> The picture that emerges in this case is of two physicians striving to conceal their uncertainties – not necessarily intentionally, but because their role demanded doing everything possible to cure their patient, though rather than their goal being a complete recovery, perhaps the objective was simply to alleviate the symptoms that Eneberg suffered from.

Eneberg's treatment was governed by dietetics, and adopting the correct dietetics was seen as the way towards recovery and strengthening the body. Crucial for this treatment was the six non-naturals, to which Eneberg clearly paid attention. He attached great importance to food and sleep, and his frequent mentions of outings suggest that he too saw a change of air as beneficial to his health. This was holism at its most effective: the whole body had to be strengthened, and both body and environment together played an essential role. Eneberg also relied on treatment prescribed to him based on humoralist principles, with emetics and laxatives designed to correct the circulation of bodily fluids. Just as in dietetics, these ideas were bound up with the long-standing traditions which would have framed both Eneberg's and his physicians' medical knowledge. It certainly contributed to the trust between them.

The uncertainty that physicians felt in their work should be seen for what it was: part of the practice of medicine and the contract between patient and physician. It was a known fact that medicine was largely a mystery, with much

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81 Kontturi, "Läkande, botande och bilden av den kompetenta medicinaren" (2020): 497–516.

still to be solved, and indeed, that is still the case today. Each new generation of physician adds new links to the chain. In the days of old, faith in providence, as well as the inclination to explain illness as the will of God, suggests that uncertainty was something that verged on the acceptable. Eneberg also turned to God at times, usually in those moments of doubt, frustration and worry.<sup>82</sup> Perhaps it was a sign that he, as with many other patients of the time, simply sought medical help after exhausting all other possibilities – not in the expectation of a cure, but in the hope that someone could at least alleviate the symptoms and the suffering. Whilst the physician, drawing upon his knowledge and experience, attempting one treatment after another, wondering if he would add perhaps a new link to the medical chain, though at the same time well aware that he lacked so many answers, continued in his duty to test all variables in the hope of finding a remedy for his patient.

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82 NLF: *Eneberg Diary* (1851–1852); Knipström, *Hvad är vårt lif då hälsan saknas?* (2015).

# The Benefit of the Doubt: The Logic Behind 'Radical' Gynaecological Operations (Belgium, 1890s–1900s)

*Jolien Gijbels*

## 1 Introduction

In 1891, Charles Jacobs reported on four cases of uterine removal in the bulletin of the recently founded Belgian Society of Gynaecology and Obstetrics.<sup>1</sup> The patients suffered from pelvic suppuration (large pus collections in the pelvis). Prior to the operations, he had tried other treatments, including cauterisation, sedatives and bed rest. The overall health of the women, however, deteriorated to such an extent that they were “condemned to either death, within a short or larger time interval, or at least to impotence”.<sup>2</sup> Subsequently, Jacobs turned to the surgical method of the French doctor Jules-Émile Péan, vaginal hysterectomy by morcellation, to remove the patients’ uteri and uterine appendages. The results were, according to him, absolutely satisfying. All four women recovered completely, in contrast to patients with similar gynaecological complaints on whom he had performed other types of surgery in the past. With regards to the scope of the surgical resection, he sided with French surgeons who preferred the removal of the uterine appendages on both sides over a unilateral ablation. He argued that the sacrifice of healthy tissue could prevent the recurrence of inflammation and later high-risk pregnancies: “In hysterectomy, as in laparotomy, it is necessary to act according to one’s clinical conscience, and to know how to sacrifice the healthy or slightly affected adnexa, at the cost of a very problematic later pregnancy. I am of course only talking about cases of serious unilateral lesions.”<sup>3</sup>

Jacobs’ case histories are illustrative of the development of gynaecology as a surgical discipline in Belgium. Until the end of the nineteenth century, abdominal surgery had been regarded as inherently risky by Belgian physicians.

1 Charles Jacobs, “De l’hystérectomie par morcelllement dans les suppurations pelviennes”, *Bulletin de la Société belge de Gynécologie et d’Obstétrique* (from now on: *BSBGO*) 2 (1891): 124–134.

2 Jacobs, “De l’hystérectomie par morcelllement” (1891): 129.

3 Jacobs, “De l’hystérectomie par morcelllement” (1891): 130.

Gynaecological conditions were mainly treated medically. Around 1890, following the example of countries such as Great Britain, Germany and the United States, gynaecology developed into a separate discipline at Belgian universities and hospitals, and became the favoured domain of Belgian surgeons with an interest in abdominal surgery.<sup>4</sup> As a founding member of the Belgian Society of Gynaecology and Obstetrics, Jacobs was the most dominant voice in discussions about surgical experimentation. Over the course of few years, his indications for removing women's reproductive organs expanded considerably. In the society's bulletin he began promoting the extirpation of the womb as the solution to a wide range of gynaecological problems, including infections and inflammations, cancer of the uterus and the cervix, uterine fibroids (noncancerous growths of the uterus) and pelvic organ prolapse.

At the same time, the operations themselves also became more radical. In 1891, when Jacobs discussed Péan's surgical technique, he had emphasised that removal of the uterine appendages on both sides was only justified in cases of serious pelvic suppuration. A few years later, however, Jacobs would become an advocate of radical excisions of affected organs and adjacent healthy ones. A small but influential group of Belgian gynaecologists began giving preference to bilateral oophorectomies and salpingectomies (the surgical removal of, respectively, both ovaries and fallopian tubes) over the extirpation of the ovary and fallopian tube on one side of the body. They replaced so called "incomplete" hysterectomies by surgery that extirpated the womb and its neck, and in many cases, surgeons even removed women's ovaries, fallopian tubes, uteri and cervixes altogether.<sup>5</sup> These Belgian experiments took place when controversy over the justifiability of radical surgery had been raging in other countries for several years. In the United States particularly, the late 1880s had witnessed fierce criticism of "reckless" operating and radical operations that "unsexed" women. In response, gynaecologists in the United States, France and Germany began pioneering conservative surgeries that resected the diseased part of the organ and preserved healthy tissue in the 1890s.<sup>6</sup>

4 Jolien Gijbels and Kaat Wils, "Medicine, Health and Gender", in: Joris Vandendriessche and Benoît Majerus (eds.), *Medical Histories of Belgium: New Narratives on Health, Care and Citizenship in the Nineteenth and Twentieth Centuries* (Manchester: Manchester University Press 2021): 40–47.

5 Charles Jacobs, "Traitement chirurgical du fibrôme utérin", *BSGO* 6 (1895): 161.

6 Ornella Moscucci, *The Science of Woman: Gynaecology and Gender in England, 1800–1929* (Cambridge: University Press 1993): 158–164; Regina Morantz-Sanchez, *Conduct Unbecoming a Woman: Medicine on Trial in Turn-of-the-Century Brooklyn* (Oxford: University Press 1999): 107–110; Sally Frampton, *Belly-Rippers, Surgical Innovation and the Ovariectomy Controversy* (London: Palgrave Macmillan 2018): 187–190.

Journal publications reveal a confident medical discourse on the solutions offered by “modern” surgical gynaecology.<sup>7</sup> Belgian gynaecological surgeons built on the recent surgical achievements in other countries they had read about in foreign medical journals. Increasing numbers of operation became possible in Europe with the introduction of aseptic and antiseptic techniques, and with anaesthesia and analgesia. In the early 1880s, the mortality for hysterectomy was estimated to be about 70%, while around 1885 mortality rates had decreased to 35%.<sup>8</sup> In the history of surgery and risk, the techno-scientific rationalism of surgery, with Joseph Lister’s antiseptics as a prime example, has received much attention.<sup>9</sup> Recent studies have argued, among other things, that the use of statistics at the end of the nineteenth century contributed to a growing confidence in surgery. The safety of a procedure could be measured, which made surgical risk calculable and controllable. Moreover, surgeons often succeeded in communicating this confidence in the possibility of safe surgery to patients.<sup>10</sup> Medical historian Claire Brock has recently complicated this narrative of growing assuredness by her study on cleft palate surgery, a procedure that was associated with many uncertainties in the early twentieth century.<sup>11</sup> In most of these histories of surgery, however, medical uncertainty appears as a form of anxiety for which surgeons developed coping strategies.<sup>12</sup> I argue, on the contrary, that gynaecologists employed doubt also as an argument for surgery. In particular, those who prioritised radical approaches to surgery used factors of uncertainty to justify their experiments.

Conceptions of risk were an integral part of the discourse of Belgian gynaecologists. In a country where abdominal surgery was a largely unexplored territory, gynaecologists were often unsure about the outcome of their experiments with new and dangerous operation techniques. They were constantly

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7 Jolien Gijbels, *The Perils of Birth: Obstetrics, Religion and Medical Ethics in Belgium (ca. 1830–1914)* (Unpublished PhD dissertation) (Leuven: KU Leuven 2021): 357–358.

8 Frampton, *Belly-Rippers* (2018): 144–145.

9 Michael Brown, *Emotions and Surgery in Britain, 1793–1912* (Cambridge: University Press 2022): 237–274.

10 Sally Wilde, “Truth, Trust, and Confidence in Surgery, 1890–1910: Patient Autonomy, Communication, and Consent”, *Bulletin of the History of Medicine* 83 (2009), no. 2: 302–330; Thomas Schlich, “No Time for Statistics: Joseph Lister’s Antiseptics and Types of Knowledge in Nineteenth-Century British Surgery”, *Bulletin of the History of Medicine* 94 (2020), no. 3: 394–422.

11 Claire Brock, “Surgery, Success, and the Role of the Patient in Cleft Palate Operations, circa 1800–1930”, *Isis* 113 (2022), no. 1: 22–44.

12 Thomas Schlich and Ulrich Tröhler (eds.), *The Risks of Medical Innovation: Risk Perception and Assessment in Historical Context* (Routledge Studies in the Social History of Medicine 21) (London / New York: Routledge 2006).

confronted with their lack of knowledge about the aetiology of gynaecological ailments and the prognosis of available treatments. I argue that epistemic uncertainty, as much as medical confidence, was a fundamental contributing factor to the rise of gynaecological surgery. By analysing the layers of medical uncertainty in the bulletin of the gynaecological and obstetric society, I show how expressions of diagnostic doubts and uncertainty about prognosis in medical publications served to justify radical operations. Because of the nature of these discussions, medical justifications for surgery offer a rather unbalanced image of medical decision-making. Doctors usually omitted to mention the uncertainties posed by negotiations over surgery with patients. Only their case histories offer a glimpse of how patient responses to surgery informed medical decisions. This chapter illuminates a short but unique phase of surgical experimentation, that was followed by a period of growing criticism of radical surgery.

## 2 The Emergence of Gynaecological Surgery in Belgium

The first known example of a successful surgical removal of a female reproductive organ in Belgium took place in 1870 when surgeon Gustave Boddaert performed an ovariectomy. It did not, however, immediately result in the uptake of the procedure by fellow surgeons. In the following twenty years, advocates of ovariectomy were met with suspicion by colleagues who adhered to non-surgical methods of treatment.<sup>13</sup> Compared to countries with a strongly anchored surgical field, such as Great Britain and the United States, surgery as a practice expanded slowly. Not coincidentally, the rapid rise of surgical intervention in those countries coincided with the emergence of specialty hospitals, specialty surgical societies, and specialty journals. The foundation of the first women's hospitals in Britain and the United States around 1850, for instance, happened about three decades before the establishment of gynaecological hospital services in Belgium.<sup>14</sup> In German-speaking Europe, and to a lesser extent in France, the 1870s also inaugurated a period of surgical experimentation and innovation.<sup>15</sup>

13 Tommy (Julie) De Ganck, *Cultiver la différence: Histoire du développement de la gynécologie à Bruxelles (1870–1935)* (Unpublished PhD dissertation) (Brussels: Université Libre de Bruxelles 2016): 230–260.

14 Moscucci, *The Science of Woman* (1993): 75–76, 135–137; Peter J. Kernahan, "Surgery Becomes a Specialty: Professional Boundaries and Surgery", in: Thomas Schlich (ed.), *The Palgrave Handbook of the History of Surgery* (London: Palgrave Macmillan 2018): 95–113.

15 Ornella Moscucci, *Gender and Cancer in England, 1860–1948* (London: Palgrave Macmillan 2016): 65–66; Frampton, *Belly-Rippers* (2018): 117–119.

In Belgium, gynaecology emerged as one of the first specialised fields of practice at the end of the 1880s, with the introduction of gynaecological departments in public hospitals, the organisation of the first clinical courses, and the foundation of the Belgian Society of Gynaecology and Obstetrics.<sup>16</sup> The sixteen founding members of the gynaecological and obstetric society all had a specialised profile. As university professors and heads of surgical, obstetrical and gynaecological services, they operated in the context of private or public hospitals.<sup>17</sup> Despite early efforts to unite obstetrics and gynaecology in educational programmes and in hospital services, these fields were conceptualised and organised as two different specialties: obstetricians specialised in childbirth, whereas gynaecologists focussed on the (mal)functioning of the female reproductive organs before and after childbirth.<sup>18</sup>

The early development of the discipline of gynaecology benefited from the expansion of antiseptic practices to avoid wound infection in hospital contexts in the second half of the 1880s. Around the same time, ovariectomy was becoming a relatively safe abdominal operation, with circulating mortality rates of about 2%.<sup>19</sup> In 1899, after ten years of surgical practice, the Belgian gynaecologist Jacobs even estimated the risk of death after an ovariectomy to be “less than zero”.<sup>20</sup> Compared to ovariectomy, hysterectomy received much more attention in the newly founded journal of the Belgian society. It was a riskier procedure because surgeons had to deal with the complex vascular tissues of the uterus. Depending on the technique employed, surgeons calculated death rates of about 30%. Gynaecologists across the globe were seeking novel surgical techniques to remove the womb in order to reduce mortality.<sup>21</sup> Journal articles by Belgian gynaecologists on hysterectomy reflect international trends in these burgeoning surgical methods. In the early 1890s, Belgian gynaecologists mainly published about vaginal hysterectomy, while at the turn of the century, under impulse of surgical developments in the United States and German-speaking countries, the abdominal variant became their treatment of choice.

The number of articles on different operations published in the bulletin does not, however, correlate with the number of different operations performed. Ovariectomy, for instance, remained a common operation, even though

16 Tommy De Ganck, “Souffrir de folie ou souffrir à la folie ? La chirurgie gynécologique à Bruxelles au tournant du XXe Siècle”, *Histoire, Médecine et Santé* (2018), no. 12: 41–43.

17 “Liste des membres fondateurs”, *BSGO* 1 (1890): VI–VIII.

18 Gijbels and Wils, “Medicine, Health and Gender” (2021): 40–47.

19 De Ganck *Cultiver la différence* (2016): 124.

20 De Ganck *Cultiver la différence* (2016): 73.

21 Ilana Löwy, *A Woman's Disease: The History of Cervical Cancer* (Oxford: University Press 2011): 368–372; Moscucci, *Gender and Cancer in England* (2016): 66–74.

surgeons rarely dwelt upon it in their scientific articles. Comprehensive overviews of performed operations give perhaps the most accurate image of gynaecologists' experience with procedures. In 1899, for instance, Jacobs published an article detailing all of his 1,996 operations over the preceding ten years. According to his overview, he had 305 ovariectomies on his account, compared to 304 abdominal hysterectomies and 694 vaginal hysterectomies.<sup>22</sup> Scientific journals, moreover, do not offer direct insight into the motivations of surgeons to perform radical surgery. The lack of attention to the economic implications of abdominal surgery in scientific publications forms a telling example. As healthcare historian Sally Frampton has demonstrated on the basis of archival research, ovarian surgery was a lucrative business compared to non-surgical treatments in Britain.<sup>23</sup> For Belgium, the financial motivations of surgeons still await research.

The medical press is nonetheless an interesting source through which to analyse arguments justifying radical surgical methods. Through this medium of knowledge, physicians discussed medical innovations introduced by others and made public claims about their own operating techniques. At the end of the nineteenth century, a number of Belgian gynaecologists began supporting the extirpation of healthy tissue alongside diseased organs. Their turn to extensive surgery is most obvious in medical discussions about uterine fibroids. In 1892, the members of the gynaecological and obstetrical society were still undecided about the best surgical treatment to remove these benign tumours. Depending on the location and nature of the tumour, surgeons could either focus on the tumour alone, remove the uterus, or opt for a so-called "total" hysterectomy to remove the womb along with the cervix. Jacobs, the most dominant voice in this discussion, shared his positive experiences with hysterectomy without making claims about which surgical technique was preferable. The other participants also concluded that, every surgical treatment having its value, the choice for a procedure depended on the case.<sup>24</sup>

The Brussels gynaecologist Edmond Rouffart was the only doctor at the time who endorsed total hysterectomy in women with uterine fibroids.<sup>25</sup> It did not take long, however, before other members of the society began publishing their experiences of radical hysterectomies. In 1893, a close colleague

22 Charles Jacobs, "1996 Laparotomies", *BSBGO* 10 (1899): 33–112.

23 Frampton, *Belly-Rippers* (2018): 131–170.

24 "Discussion générale sur le traitement du pédicule dans la myomotomie abdominale", *BSBGO* 3 (1892): 18–30.

25 Edmond Rouffart, "Hystérectomie totale dans le traitement des fibrômes", *BSBGO* 2 (1891): 76–83.

of Jacobs promoted a method developed by Jacobs to remove voluminous fibroids through the abdomen. By the time of publication, five such operations had been carried out by Jacobs, one of them with fatal consequences for his patient.<sup>26</sup> Soon after, Jacobs became an ardent advocate of total hysterectomy in meetings of the Belgian society. He tried to persuade fellow members to move away from conservative surgeries. When they presented their results of hysterectomies, Jacobs repeatedly responded that he did not understand why they had not resected the cervix. Total hysterectomy was, according to him, easier, decreased the risk of infection, and brought down the number of post-operative deaths.<sup>27</sup> By the middle of the 1890s, total hysterectomy for fibroids had been embraced by quite a few members of the society.<sup>28</sup>

In contemporary debate, physicians distinguished ‘radical’ from ‘conservative’ operations, the latter often referring to procedures that retained as much tissue as possible. Yet, as Frampton has rightfully argued, the distinction between the two is far from straightforward and rather dependant on contemporary sensitivities.<sup>29</sup> Like their British counterparts, some Belgian doctors presented the ‘radical’ excision of the womb and cervix as offering a complete cure to their patients. For Jacobs in the early 1890s, a radical operation was akin to curative, given that “incomplete” surgery might lead to the recurrence of a tumour. That is why he argued that the abandonment of the pedicle of uterine fibroids – this is a stalk of tissue connecting the tumour to other parts of the female body – inside the abdomen was too risky.<sup>30</sup> Around 1900, the same logic was applied to medical discussions about the surgical treatment of cancer of the body of the uterus. After failed experiments with vaginal hysterectomy, surgeons from various countries developed vagino-abdominal and abdomino-vaginal methods that removed both the uterus and cervix together, in an effort to come up with a definitive cure for uterine cancer.<sup>31</sup>

26 Janvier, “Un cas de fibromyômes interstitiels et sous-muqueux multiples”, *BSBGO* 4 (1893): 92–95.

27 Émile Lauwers, “Du traitement intra-péritonéal du pédicule après l’amputation supra-vaginale de l’utérus”, *BSBGO* 5 (1894): 78; H. Dorff, “Du traitement intra-péritonéal du pédicule après myo-hystérectomie abdominale”, *BSBGO* 6 (1895): 10.

28 Gustave Tournay, “Une erreur de diagnostic: utérus bilobé fibromateux pris pour une tumeur salpingienne; laparotomie infructueuse, hystérectomie vaginale. Guérison”, *BSBGO* 6 (1895): 34–35; Alphonse Delétréz, “Contribution à l’étude du traitement chirurgical des fibrômes utérins”, *BSBGO* 6 (1895): 164–170.

29 Frampton, *Belly-Rippers* (2018): 186–187.

30 Jacobs, “Traitement chirurgical du fibrôme utérin” (1895): 161.

31 Moscucci, *Gender and Cancer in England* (2016): 73–74.

### 3 Justifications of Radical Surgery

Recent historical research has shown that, from the nineteenth century until far into the twentieth century, fibroids counted as the most common surgical indication for hysterectomy.<sup>32</sup> As Ornella Moscucci has explained, gynaecologists at the end of the nineteenth century found it easier to defend hysterectomy for benign tumours than for cancer, because it offered the promise of a definitive cure. With malignant tumours, on the other hand, it was seen as a desperate solution. The removal of the uterus often could not prevent cancer from returning in patients. Failing experiments and the prospect of recurring cancer made surgeons uncertain about the possibility of cure.<sup>33</sup> In fact, the practice of total hysterectomy in women with fibroids largely rested on the assumption that benign tumours could potentially develop into cancerous growths. Advocates of radical surgery repeatedly alluded to the spectre of degeneration. They used this term to refer to a process in which benign tumours become malignant. Removing all the tissue was, according to them, necessary to avoid the risk of cancer. As Jacobs put it, “in my opinion, the incomplete operation has a disadvantage which should see it rejected by all those who want to advance surgery: it *intentionally* leaves the cervix, which, at the time of the operation, may already be invaded by the degenerative process I mentioned earlier.”<sup>34</sup>

Surgical attitudes to fibroids were strongly influenced by older medical ideas about the menopause as a ‘critical age’. According to those, the cessation of menses marked the moment when women’s reproductive organs became useless and women became more susceptible to disease.<sup>35</sup> In the middle of the 1890s, some Belgian proponents of total hysterectomy began referring to the alleged harmful effect of menopause on the development of fibroids. They mentioned cases of fibroids that had transformed into malicious growths after the end of women’s menstrual cycles.<sup>36</sup> This hypothesis was, however, contested by gynaecologists who had come to other conclusions based on their own clinical observations.

32 Alison M. Downham Moore, “Race, Class, Caste, Disability, Sterilisation and Hysterectomy”, *Medical Humanities* 49 (2023): 29.

33 Moscucci, *Gender and Cancer in England* (2016).

34 Jacobs, “Traitement chirurgical du fibrôme utérin” (1895): 161.

35 Alison M. Downham Moore, *The French Invention of Menopause and the Medicalisation of Women’s Ageing: A History* (Oxford: University Press 2022): 364–415.

36 V. Stobbaerts, “Fibrome du canal de l’urètre”, *BSBGO* 6 (1895): 110; “Communication de H. Dorff. Du traitement du fibrome utérin”, *BSBGO* 7 (1896): 31; Charles Jacobs, “A propos des indications opératoires du fibrome utérin”, *BSBGO* 8 (1897): 12–15; Charles Jacobs, “Fibrome utérin. Quelques observations cliniques tirées de 633 opérations abdominales (1889–1905)”, *BSBGO* 16 (1906): 79.

The Brussels gynaecologist H. Dorff, one of the most prominent critics of total hysterectomy in the Belgian Society of Gynaecology and Obstetrics, argued that he had seen many fibroids disappear after the menopause. Other important arguments against the performance of radical surgery were the high mortality associated with total hysterectomy and the fact that benign tumours could be managed with non-surgical treatments and less dangerous types of surgery.<sup>37</sup>

Nonetheless, for a short period of time, radical types of surgery, such as total hysterectomy, held appeal for a number of Belgian gynaecologists. By 1895, quite a few members of the gynaecological and obstetric society had come to see the cervix as a potential source of infection. Immediate deaths following uterine removals were attributed to a local infection spreading from the uterus to the cervix. The idea was that, at the time of the operation, it was difficult to determine whether a part of the cervix was infected or not. When infected, the lesion was thought to quickly spread and eventually lead to death. Following this logic, partisans of total hysterectomies claimed that gynaecologists could save more lives by taking away the womb and cervix altogether. In discussions, they contended that cases of post-operative deaths could have been prevented by radical surgery.<sup>38</sup> In other countries, similar arguments appeared. Healthy ovaries were often removed along with the uterus in Great Britain on grounds that they could become dangerous.<sup>39</sup> Moreover, the justification of a total hysterectomy for small fibroids resembled those for cancer. As historian of medicine Ilana Löwy convincingly argues, the rise of surgical radicalism at the end of the nineteenth century was accompanied by a changing approach to tumours. Whereas surgeons in the early nineteenth century reserved surgical therapies for large tumours, their successors became convinced that radical surgery achieved the best results with small local tumours. In other words, the ascent of radical surgery took place at a moment when surgeons had started rethinking the relationship between the size of the lesion and the radicality of the cure.<sup>40</sup>

Yet, the evidence on which claims about total hysterectomies were made was thin. In 1895, Jacobs asked the Kortrijk surgeon Émile Lauwers how the latter determined whether the uterus was infected or not. Lauwers was against total hysterectomy for fibroids and had declared that he only resected

37 H. Dorff, "Du traitement du fibrome utérin. (Réponse à M. Jacobs)", *BSBGO* 7 (1896): 11–14; "Communication de H. Dorff" (1896): 30–32; H. Dorff, "A propos des indications opératoires du fibrome utérin", *BSBGO* 7 (1896): 201–204.

38 Émile Lauwers, "Du hystérectomie abdominale à pédicule perdu", *BSBGO* 6 (1895): 184–185; H. Dorff, "Deux cas de myôme utérin", *BSBGO* 4 (1893): 88–89.

39 Frampton, *Belly-Rippers* (2018): 188.

40 Löwy, *A Woman's Disease* (2011): 40.

the cervix in cases of malignancy and serious infection. Jacobs replied that he did not know of any diagnostic tool that offered clarity on the existence of infection. In the absence of diagnostic certainty, it was, according to him, better to opt for radical surgery in all suspected cases of infection.<sup>41</sup> Similarly, gynaecologists lacked evidence of fibroids developing into a malignant growth. When fellow society members asked for proof, Jacobs' response was limited to a brief statement citing the number of cases where he had detected malignant tissue after surgery. In 1897, he declared to have observed fifty-seven cases of degeneration out of a total of 171 operations. He promised to reveal more details to his colleagues in a future meeting, but failed to do so.<sup>42</sup> Six years later, in contrast, Jacobs admitted that he had barely found diagnostic evidence of malignant degeneration over the years. His conviction that fibroids could potentially degenerate had been largely based on one case of hysterectomy for fibroids, where microscopic research following the operation had revealed cancerous tissue.<sup>43</sup>

In Belgium, as elsewhere, gynaecologists typically based therapeutic choices on a clinical diagnosis, which consisted of a visual and physical examination of a woman's reproductive organs. Yet, mistakes in the diagnostic process frequently led to a misdiagnosis. As some Belgian gynaecologists testified in society meetings, it happened that uterine fibroids were taken for fallopian tumours or tubal abscesses for ovarian cysts. Many errors were revealed during the course of operating, others were brought to light by pathological analysis after surgery. Physicians often confused early stages of uterine cancer, for instance, with uterine inflammation during clinical examination, but the difference between the two was easier to distinguish under the microscope.<sup>44</sup> In most countries at the end of nineteenth century, radical surgery was regularly followed by a microscopic analysis of a slice of extracted tissue. Bacteriological research served to confirm the diagnosis, legitimise radical surgery, and provide gynaecologists with further information on the nature of extracted tumours.<sup>45</sup>

41 Lauwers, "Du hystérectomie abdominale à pédicule perdu" (1895): 184.

42 Jacobs, "A propos des indications opératoires du fibrome utérin" (1897): 14–15.

43 Charles Jacobs, "Traitement opératoire du fibrome", *BSBGO* 14 (1903): 145.

44 Joseph Godart, "Cancer primitif du corps utérin", *BSBGO* 6 (1895): 19–20; Gustaveournay, "Une erreur de diagnostic: utérus bilobé fibromateux pris pour une tumeur salpingienne; laparotomie infructueuse, hystérectomie vaginale. Guérison", *BSBGO* 6 (1895): 34–35; Émile Lauwers, "Cancer du corps de l'utérus", *BSBGO* 10 (1899–1900): 24–29.

45 Löwy, *A Woman's Disease* (2011): 43–51; De Ganck, *Cultiver la différence* (2016): 386–387; Claire Brock, *British Women Surgeons and Their Patients, 1860–1918* (Cambridge: University Press 2017), 151–153, 179.

In Belgian hospitals in large cities such as Brussels and Liège, gynaecological clinics possessed their own laboratory.<sup>46</sup>

Towards 1900, the proceedings show a growing awareness that microscopic investigations prior to treatment were important in detecting early-stage tumours.<sup>47</sup> Just like surgeons in other countries, Belgian gynaecologists pointed to particular diagnostic errors that could have been prevented by a biopsy following clinical diagnosis.<sup>48</sup> In 1898, for instance, the Brussels gynaecologist Joseph Godart performed an abdominal hysterectomy on a woman who suffered from excessive menstrual flow, pain, constipation and insomnia. Microscopic analysis of the extracted tissue left no doubt about the malignancy of the uterine tumour. Two years prior, the patient had consulted another doctor for similar, though less serious, symptoms. She had received a curettage, after which her complaints had disappeared for a couple of months. Godart remarked that an earlier pathological analysis of the extracted tissue would have been “interesting”. At the time of the first examination, the cancer cells would probably have been visible, and the woman could have received life-saving surgery two years earlier.<sup>49</sup> None of the published articles in the bulletin before 1900, however, shows proof of microscopic diagnosis prior to surgery. Like most foreign doctors, Belgian gynaecologists continued to rely on clinical observation only in diagnosing the problem and determining the treatment.

The ease with which gynaecologists testified about cases of diagnostic uncertainty in the setting of a specialised medical society points to the limits of gynaecological knowledge at the time. In a report from a meeting of 1893, the Antwerp gynaecologist J. Henrotay remarked that the “why” of menstrual flow had not yet received a satisfactory explanation. Nicolas Charles, an obstetrician, agreed that it would be interesting to know why women menstruated and men did not, and how menstruation was influenced by radical surgery.<sup>50</sup> Epistemic uncertainty about physiological processes and the effects of surgery prompted gynaecologists who took a conservative approach to surgery to act with caution. In a discussion about conservative vaginal operations, some

46 Ferdinand Fraipont, “La Maternité de Liège et l’enseignement Obstétrical & Gynécologique à l’université”, *Annales de La Société Médico-Chirurgicale de Liège* 39 (1900): 111; De Ganck, *Cultiver la différence* (2016): 385–386.

47 Charles Jacobs, “La voie abdominale dans le traitement du cancer utérin”, *BSBGO* 8 (1897): 139; Émile Lauwers, “Du cancer du corps de l’utérus”, *BSBGO* 8 (1897): 185.

48 Löwy, *A Woman’s Disease* (2011): 374–375.

49 Joseph Godart, “Cancer du corps utérin”, *BSBGO* 9 (1898–1899): 157–159.

50 J. Henrotay, “Des altérations du sang menstruel en dehors des affections utérines ou annexielles”, *BSBGO* 4 (1893): 63–68.

expressed the view that, whenever chronically inflamed ovaries had to be extirpated, the healthy uterus must remain in place. Jean-Hilaire Keiffer, who authored a dissertation on the anatomy and physiology of the womb, stressed that it might have unknown physiological functions. In contrast, advocates of radical surgery instrumentalised unproven medical theories. In the same discussion, for instance, Jacobs and Henrotay put forward a familiar argument: the surgical removal of inflamed uterine appendages had to go together with the resection of the “useless” uterus. After all, the womb could potentially become a dangerous source of infection, such as from gonorrhoea, metritis or epithelium.<sup>51</sup>

To justify claims about operations, case statistics were fundamental. In the bulletin of the Belgian Society for Gynaecology and Obstetrics, numerical data on the results of surgery served as the basis for claims about the superiority of particular surgical techniques. As historian of medicine Thomas Schlich argues, statistics can be conceptualised as a “technology of trust” by which surgeons could calculate the risks of an operation. At the end of the nineteenth century, numbers of surgical results were increasingly seen as the best evidence of the effectiveness of a procedure.<sup>52</sup> Belgian gynaecologists compared case statistics from their own practice with those from other physicians, both Belgian and foreign. Based on ‘good’ and ‘bad’ results, they evaluated the viability of surgical methods. So-called ‘good’ results usually referred to cases of post-operative survival, whereas ‘bad’ results pointed to deaths. Patients’ long-term recovery from laparotomy and the occurrence of complications were generally absent from discussions about surgical therapies.

Medical opinion about the results of operations was, however, constantly subject to change. It often happened that surgeons quickly turned their back on a technique they had applauded only a few years earlier. Until the middle of the 1890s, for instance, Jacobs shared his positive results of vaginal hysteropexy, an operation that surgically lifted the uterus to treat uterovaginal prolapse. In 1893, he characterised the procedure as “non-dangerous” and “giving excellent results”, after performing forty operations with success. In 1894, he declared that his experiments with the technique had, so far, not led to immediate or subsequent mortality.<sup>53</sup> Two years later, it turned out that he had always had

51 Charles Jacobs, “Des opérations vaginales conservatrices sur les annexes de l’utérus”, *BSBGO* 6 (1895): 91

52 Schlich, “No Time for Statistics” (2020). For a more elaborate account of the power of quantitative methods in science, see Theodore M. Porter, *Trust in Numbers: The Pursuit of Objectivity in Science and Public Life* (Princeton, NJ.: University Press 1995).

53 L. Gillion, “De l’hystéropexie vaginale double”, *BSBGO* 4 (1893): 61–63; Charles Jacobs, “Note sur l’hystéropexie vaginale”, *BSBGO* 5 (1894): 217–224.

doubts about the risks of vaginal hysteropexy. He conveyed a far less rosy image of vaginal hysteropexy. While operating, he had encountered many problems and abundant bleeding. For this reason, the abdominal operation had to take precedence, also because it was easier and quicker.<sup>54</sup>

Changing narratives of surgical results have to be understood in a context of relentless experimentation with surgical techniques. Gynaecologists believed that accumulating experience with old and new surgical methods would drastically lower the mortality rates. They tried to find better ways to perform surgery through a process of trial and error on patients.<sup>55</sup> I use the word 'experimentation' to discuss various surgical techniques employed by doctors who prioritized the creation of knowledge over improving women's reproductive health. To date, experimentation remains a constitutive aspect of clinical practice. However, during the period under discussion, surgeons trialed surgical procedures even when these were known to offer women few chances of survival. As in other countries, two different approaches to the assessment of risks emerge in Belgian debates on gynaecological surgery. The first consisted of evaluating a surgical technique and its safety for patients in its current form, whereas the second consisted of assessing whether it had potential for further improvements.<sup>56</sup> Belgian proponents of radical hysterectomy consistently took the second approach. They based their experiments with dangerous techniques on the assumption that an operating technique with an initially high mortality rate could potentially become the procedure of the future.

In discussions on surgical approaches to uterine fibroids, both positions were well-represented. In 1895, for example, Dorff and Jacobs entered into a long discussion on the statistical results of surgical treatments in women with fibroids. Both gynaecologists used case statistics to prove the superiority of their treatment of choice. Jacobs used the numerical results of the French gynaecologist Samuel Jean Pozzi to demonstrate the justifiability of total hysterectomy, while painting a grim picture of hysterectomy that left the cervix in place. As Dorff argued, however, Jacobs made this claim on the basis of old statistics from 1892. More recent statistics estimated 15 to 25% mortality for the former, and 4.24 % for the latter. Dorff's relatively low mortality rate for hysterectomy was based on adding up the results of his own cases and those of

54 H. Dorff, "Quelques considérations sur l'opération du prolapsus total", *BSBGO* 7 (1896): 101.

55 Sally Wilde and Geoffrey Hirst, "Learning from Mistakes: Early Twentieth Century Surgical Practice", *Journal of the History of Medicine and Allied Sciences* 64 (2009), no. 1: 76.

56 Ulrich Tröhler, "To Assess and to Improve: Practitioners' Approach to Doubts Linked with Medical Innovations 1720–1920", in: Schlich and Tröhler (eds.), *The Risks of Medical Innovation* (2006): 20–37; Moscucci, *Gender and Cancer in England* (2016): 72.

other surgeons.<sup>57</sup> In response, Jacobs dismissed what he called the “corrupted” statistics of Dorff by stressing that there was another, “much more serious” argument in favour of total hysterectomy:

Let us follow the example shown by our masters, let us work in the same direction, let us perfect our operating methods, but let us abandon those preconceived ideas that would make us reject out of bias an operation that is perhaps the operation of the future.<sup>58</sup>

Jacobs questioned the value of case statistics as a reliable source of evidence at the very moment they conflicted with his surgical approach. It appears that some surgeons were willing to give radical operations the benefit of the doubt, even when other surgical techniques produced better results.

#### 4 Patients and Consent

Medical discussions on the benefits and pitfalls of abdominal operations typically suggest that decisions about surgical treatments materialised as the result of a clinical diagnosis and an estimation of surgical risks. In medical articles and proceedings, physicians often omitted to mention the role that patients had played in the decision-making process. Even so, the possibility of surgery depended on successful negotiations with patients over surgical cures. After all, gynaecological surgeons needed to persuade women to undergo surgery before they could experiment with new procedures. Historian Sally Wilde argues that the communication between doctors and patients was crucial to the rise of surgery. At the end of the nineteenth century, increasing numbers of patients consented to surgical procedures, because surgeons were able to instil confidence in them.<sup>59</sup>

The genre of the case history offers a mediated window into the motivations of patients to undergo surgery and their agency in clinical interactions. In describing individual patients’ medical histories, physicians paid considerable attention to the health condition of women.<sup>60</sup> Unbearable abdominal pain was

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57 Jacobs, “Traitement chirurgical du fibrôme utérin” (1895): 160; Dorff, “Du traitement du fibrome utérin” (1896): 6–14.

58 “Communication de H. Dorff” (1896): 32.

59 Wilde, “Truth, Trust, and Confidence in Surgery” (2009).

60 This article takes a closer look at the perspectives of patients who underwent gynaecological operations in the United States around 1900, see Jolien Gijbels, “Invloedrijke stem-

a major reason why women were prepared to place themselves in the hands of surgeons. They had typically suffered for years from a great deal of discomfort and pain that disrupted their daily routine before they considered surgery. Most gynaecological observations of cases mention pain crises, symptoms of a poor general health such as weight-loss, and even bedridden patients. Some also contain information about previous ineffective treatments. Based on these sources, it appears that many patients were desperately looking for a way out of their health problems. In a few cases, medical authors of the case histories explicitly stated that the poor condition of a patient was the primary reason for surgical intervention.<sup>61</sup> In a few discussions about the pros and cons of different surgical techniques, doctors also referred to the health condition of patients. Dorff argued, for instance, that the danger of an operation always had to be proportionate to the suffering that women endured. Even the most dangerous operation was justified when the life of patients was in danger. The same went for situations when they suffered so badly that they lost their vitality or, in the case of the working class, when their pain prevented them from making a living.<sup>62</sup>

The class of patients played a role in decisions about surgery. In observations and tables containing surgical results, “being unable to work” was regularly listed as an indication for radical surgery.<sup>63</sup> Like gynaecologists in other countries, Belgian surgeons were more prepared to operate on working class women than middle class patients.<sup>64</sup> They argued that it was the duty of the gynaecologist to perform radical operations on women with domestic and occupational duties, because the latter lacked the time and financial means to undergo long treatments.<sup>65</sup> Moral judgments were also at play here. Conservative treatments such as the use of the pessary were considered of no use to so-called “women of the people”, because they took too little care of themselves, as a result of which the pessary risked becoming infected.<sup>66</sup> A few remarks also

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men. Patiëntenverhalen uit het Johns Hopkins ziekenhuis rond 1900”, *Historica* 46 (2023), no.3: 3–9.

61 Alphonse Delétréz, “Quelques particularités observées dans les laparotomies”, *BSGO* 1 (1890): 214; Charles Jacobs, “Un cas de fibro-myome utérin avec hémato- et pyosalpinx”, *BSGO* 1 (1890): 248.

62 Dorff, “Quelques considérations sur l’opération du prolapsus total” (1896): 98.

63 Émile Lauwers, “73 laparotomies pratiquées en 1888–1890 à l’Institut des sœurs de charité, à Courtrai”, *BSGO* 2 (1891): 16.

64 Morantz-Sanchez, *Conduct Unbecoming a Woman* (1999): 50; Frampton, *Belly-Rippers* (2018): 155–156.

65 Camille Moreau, “Énorme hernie ombilicale. Grossesse extra-utérine datant de seize ans. Cure radicale de la hernie. laparotomie et extirpation du kyste fœtal avec les annexes du côté gauche. Guérison.”, *BSGO* 3 (1892): 195.

66 Dorff, “Quelques considérations sur l’opération du prolapsus total” (1896): 103.

suggest that surgeons found consent negotiations with well-to-do women and their families more difficult. Henrotay mentioned that “in the better classes of society” gynaecological examinations under anaesthesia were viewed with suspicion. His proposal to conduct an examination under chloroform was usually extensively discussed and rejected, because patients and their entourage saw such an examination as a prelude to a mandatory, inevitable operation.<sup>67</sup> As Henrotay’s remark shows, patients were wary of entrusting their passive, unconscious bodies to the hands of physicians. In the nineteenth and early twentieth centuries, anaesthesia was often accused of altering the balance of power in the operating room, as physicians could more easily opt for invasive surgery without involving patients in their decisions.<sup>68</sup>

Historical research has too often overlooked the part played by patients in negotiations over major surgery. Recently, historian Alison Downham Moore has argued that the early development of hysterectomy served the interests of surgical technical advancement and clinician profits. According to her, “the common feature” of the use of hysterectomy in different contexts in the nineteenth and twentieth centuries was “that organs have been removed from women’s bodies without concern for their informed consent or for their long-term individual health, with disproportionate impacts falling on the most marginalised groups of society.”<sup>69</sup> Such statements tend to overlook the acute medical problems for which patients sought a solution and the agency that patients might have had. Although experiments with radical surgery indeed flourished in contexts where patient-centred conceptions of care were either lacking or underdeveloped, patients nevertheless remained part of clinical interactions. After all, to get a patient onto the operating table, some negotiation, even if this included the communication of misleading information, was necessary.

Negotiations between doctors and patients over surgery added another layer of uncertainty to surgical practice. Surgeons usually tried to persuade patients to agree to surgical therapy, but they did not always succeed. Published observations by Belgian gynaecologists show a variety of patient responses. Some patients, for instance, initially refused surgery out of fear, up to the point where they could no longer bear the pain and came back to ask for an abdominal operation.<sup>70</sup> As historians Regina Morantz-Sanchez and Sally

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67 J. Henrotay, “Torsion de la trompe et du pédicule d’un kyste ovarien”, *BSBGO* 12 (1901): 102.

68 Joanna Bourke, *Story of Pain: From Prayer to Painkillers* (Oxford: University Press, 2014): 277–280.

69 Moore, “Race, Class, Caste, Disability, Sterilisation and Hysterectomy” (2023): 7.

70 H. E. Nisot, “Kyste dermoïde de l’ovaire. Matrice fibrômateuse (pièce anatomique)”, *BSBGO* 6 (1895): 102–103.

Wilde show, some patients actively pursued a radical solution for their medical problems or refused to have surgery.<sup>71</sup> Additionally, some medical observations reveal levels of medical compassion and sympathy. In 1891, Jacobs described a case of an emaciated young woman with severe abdominal pain who could hardly walk. She had to be transported to his clinic. Considering her overall bad health, he did not want to put her life at risk by performing an abdominal operation, yet she demanded surgical intervention to relieve her suffering. In his own words, “only the desire to help her” compelled him to carry out a vaginal hysterectomy.<sup>72</sup>

Unfortunately, case histories reveal little about the information on the risks of surgery that surgeons provided to their patients. Conversely, in published meeting reports, gynaecologists sometimes reflected upon their communication with women. In 1892 and 1893, in the context of debates about obstetric surgery, gynaecologist Gustave Tournay declared that he often lied to patients and that he was prepared to bypass patient consent by using anaesthesia if necessary. Such statements were met with vigorous protests by colleagues. Most gynaecologists and obstetricians in the meeting contended that abdominal surgery, given its life-threatening nature, required prior consent. Operations without patient consent departed from unwritten deontological rules. Yet, in the same meeting, some members of the gynaecological society argued that it sufficed to give limited information to patients, so that they did not know exactly what kind of intervention awaited them.<sup>73</sup>

Medical ideas about consent reflected surgeons’ paternalism. In Belgium and elsewhere, gynaecologists tried to persuade patients to agree with what doctors believed was in the patients’ best interest. Both poor and middle-class patients easily found themselves pressurised in hospital contexts to accept surgery without knowing the risks and alternative treatments. Many women unwittingly had radical surgery that removed their uteri and uterine appendages. Even if they had agreed to a specific operation, they sometimes underwent a different procedure without being consulted first. It often happened that surgeons changed a procedure mid-operation after seeing the condition of the internal reproductive organs. Both the withholding of information to

71 Regina Morantz-Sanchez, “Negotiating Power at the Bedside: Historical Perspectives on Nineteenth-Century Patients and Their Gynecologists”, *Feminist Studies* 26 (2000), no. 2: 298–299; Wilde, “Truth, Trust, and Confidence in Surgery” (2009).

72 Jacobs, “De l’hystérectomie par morcellement” (1891): 126, 129.

73 “Des indications de l’accouchement prématuré, l’opération césarienne et l’embryotomie. Discussion générale (suite)”, *BSBGO* 3 (1892): 110–112; Édouard Kufferath, “Deuxième symphyséotomie pratiquée à la maternité de Bruxelles”, *BSBGO* 4 (1893): 176–177.

patients and ad hoc adaptations of procedures elucidate the hierarchical structures within medicine.<sup>74</sup>

## 5 Growing Criticism

The rise of radical gynaecological surgery in Belgium was a phenomenon largely limited to the membership of the Belgian Society for Gynaecology and Obstetrics. Interventionist approaches to gynaecological problems were new and the surgical field was small. Within the society, radical types of surgery quickly met with criticism from colleagues who questioned the justifiability of the removal of healthy reproductive organs. Already in 1892, in the Royal Academy of Medicine of Belgium, questions were raised about the possible ramifications of hysterectomy and the “castration” of women with heavy menstrual bleeding.<sup>75</sup> Around the same time, at the first conference on gynaecology and obstetrics in Brussels, Albert Walton denounced what he called surgical “abuse” and unnecessary “mutilations”. Decisions about hysterectomies and ovariectomies were taken too quickly and easily. He stressed that, although there were situations in which gynaecologists could not but turn to radical operations to cure a patient, they first had to exploit all available conservative treatment.<sup>76</sup>

Walton, along with others, pointed to specific cases of surgical abuse. He mentioned patients with conditions such as metritis, endometritis and a retroverted uterus who suffered more after the operation than before it: “I could quote a large number of similar facts which would prove that our modern surgeons seem to forget the Hippocratic law: *primo non nocere*.”<sup>77</sup> Some revelations about surgical abuse appeared in detail in the medical press. Ferdinand Popelin, for instance, reported the case of a disabled impaired woman. Popelin attributed her problems to the hardening of the uterus, the almost complete disappearance of the uterine cavity, multiple parametrial scars, and the chronic inflammation of the vagina. He emphasised that his patient had not suffered from anything prior to the surgical removal of her cervix by another gynaecologist. She had only asked medical advice about her heavy vaginal discharge. Nonetheless, her treating gynaecologist had judged that her “serious”

74 Frampton, *Belly-Rippers* (2018): 176; Downham Moore, *The French Invention of Menopause* (2022): 394–395.

75 De Ganck, *Cultiver la différence* (2016): 278–279.

76 Tommy (Julie) De Ganck, *Le sexe, une invention moderne ? Histoire des réactions face aux anomalies sexuelles et à l'hermaphroditisme en Belgique contemporaine (1830–1914)* (Cahiers de l'UF 8) (Brussels: Université des femmes 2012): 52.

77 Albert Walton, “A propos d’hystéropexie abdominale intempestive”, *BSGO* 6 (1895): 188.

condition needed surgery. Several curettages and cauterisations later, the woman was in such a bad state that Popelin saw no other solution than to propose another operation in order to reduce her suffering.<sup>78</sup>

Around 1895, disapproval of radical surgery increasingly emerged in the meetings of the Belgian Society of Gynaecology and Obstetrics. Obstetrician Édouard Kufferath protested vigorously against the opinion of Thiébaud, an assistant of Jacobs, who claimed it was “preferable” to sacrifice the healthy uterine appendages on one side to save the patient. According to Kufferath, “we have no right to remove a healthy organ, for the simple reason that we cannot know beforehand that it will save the life of the patient.”<sup>79</sup> In another discussion, Walton commented on Henrotay’s use of abdominal hysteropexy to treat metritis. The surgical uplifting of the uterus was a dangerous operation that could result in the detachment of the womb from the abdomen. Therefore, it was, according to Walton, far more logical to use a pessary to prevent the inflamed uterus from sagging.<sup>80</sup> Henrotay, who took his words as a personal affront, stated that Walton was against “all modern operative gynaecology”: “For my part, I am among those who believe that the gynaecologist’s job consists of more than wielding a curette and a dilator.”<sup>81</sup>

In the context of this debate, physicians addressed the role of education in informing surgical practice. Practical gynaecological training was fairly new. Since the end of the 1880s, Belgian universities had begun offering elective clinical courses in gynaecology. Yet, there was a lot of discontent among the professors of these courses over the lack of space in hospitals, which affected the number of patients that could be treated, as well as the quality of clinical education.<sup>82</sup> Critics of the overuse of radical surgery proposed changes in the clinical training of gynaecologists. According to Walton, the solution to surgical abuses could be found in better instruction in “small gynaecological surgery”. The ability of “young people” to set an accurate diagnosis required a good knowledge of gynaecological symptoms and conservative treatments, he argued.<sup>83</sup> Rouffart, however, replied that medical students in Brussels already

78 Ferdinand Popelin, “Une série d’opérations non justifiées. Hystérectomie vaginale. Guérison”, *BSBGO* 6 (1895): 111–112.

79 Thiébaud, “Abcès de l’ovaire et de la trompe, communiquant avec un abcès de l’épiploon”, *BSBGO* 6 (1895): 101.

80 Walton, “A propos d’hystéropexie abdominale intempestive” (1895): 185–194.

81 Walton, “A propos d’hystéropexie abdominale intempestive” (1895): 189.

82 Fraipont, “La Maternité de Liège et l’enseignement Obstétrical & Gynécologique à l’université” (1900): 111.

83 Albert Walton, “A propos d’hystéropexie abdominale intempestive (suite)”, *BSBGO* 7 (1896): 23–24.

learned about “all manoeuvres” in the clinic. Since he had begun teaching gynaecology at the Free University of Brussels, he had been paying attention to both the theory and practice of conservative treatments. Rouffart was, in fact, the only doctor with gynaecological expertise who taught gynaecology. At the other Belgian universities, obstetricians were responsible for giving classes in both obstetrics and gynaecology. Walton recognized the educational achievements of Rouffart, but still he maintained that many young gynaecologists had never followed “any serious course in gynaecology”, given the fact that Rouffart had only started his teaching activities in 1893.<sup>84</sup>

The controversies surrounding radical surgery prompted gynaecologists to highlight their efforts to preserve women’s uteri and uterine appendages. Jacobs published an article on conservative vaginal operations in response to accusations that Belgian surgeons cheerfully sterilised women. With his article he wanted to demonstrate that, even though gynaecologists “were too often led to resort to radical interventions” to cure patients, they could still “be conservative” when women’s reproductive organs had not lost all physiological functions due to pathological alterations.<sup>85</sup> It should be noted that there is no historical evidence to support the claim that Belgian gynaecologists intentionally made women sterile. The age of women was an important element in decisions on surgical treatments. In fact, as in France, most radical operations were reserved for those in their forties and older who approached the cessation of menses or who had already reached the menopause.<sup>86</sup> Gynaecologists expressed the view that a conservative approach was absolutely necessary when performing surgery on young women in their reproductive years. In a predominantly Catholic country such as Belgium, sterilisation was seen as immoral and would continue to be seen as such in the interwar period, when eugenic sterilisation initiatives surfaced elsewhere.<sup>87</sup>

Based on the journal, it seems that the general opinion among Belgian gynaecologists turned more favourable towards conservative surgical methods after 1900. Rouffart, who had been the first in Belgium to endorse total hysterectomies, began publishing about procedures that removed diseased

84 Walton, “A propos d’hystéropexie abdominale intempesive (suite)” (1896): 24.

85 Jacobs, “Des opérations vaginales conservatrices sur les annexes de l’utérus” (1895): 88.

86 Moore, “Race, Class, Caste, Disability, Sterilisation and Hysterectomy” (2023).

87 Jolien Gijbels a.o., “Aligning Faith with Medicine: Medical Ethics, Reproduction and Catholic Morality in Francophone and Anglophone Normative Literature, c. 1840–1960”, *Journal of Religious History* 46 (2022), no. 3: 451–453; Maarten Langhendries, *Catholic Doctors at the Cradle. The Persona of the Catholic Physician in Relation to Reproductive Health in Belgium and the Belgian Congo, 1909–1968* (Unpublished PhD dissertation) (Leuven: KU Leuven 2022): 191–270.

reproductive organs but left healthy ovaries in place. Walton applauded Rouffart's "conservative turn".<sup>88</sup> Shortly afterwards, Jacobs completely reconsidered his treatment of women with fibroids. After defending total hysterectomy for more than ten years, he announced in 1903 that he had changed his mind. "Millions" of hysterectomies performed in the preceding years had revealed only a dozen cases of degeneration. As a result, leaving the cervix in the woman's body could not be the cause of cancerous degeneration. Moreover, he began advocating the view that the surgical technique of abdominal hysterectomy was preferable to a total hysterectomy through the vagina because the latter took longer, was more laborious, and could lead to haemorrhaging.<sup>89</sup>

Nevertheless, Jacobs remained an advocate of hysterectomy in women with fibroids. In the 1900s, he continued to insist on surgery in cases of small fibroids where other surgeons elected to wait and see if the tumours disappeared by themselves after menopause.<sup>90</sup> Other gynaecologists continued to adhere to total hysterectomy and the theory of potential degeneration. Henrotay maintained that degenerative fibroids must be taken seriously, even though the few published cases casted doubts on the theory. He also claimed that there were many cases of degeneration that never reached the medical press, although he himself had no cases to mention. In his career, he had never come across an instance of a cancerous cervix after uterine removal.<sup>91</sup>

On the eve of the First World War, Belgian surgeons wrote about surgical techniques that, among other things, conserved one of the ovaries, retained a small piece of ovarian tissue, and kept in place a part of the endometrium. They promoted tissue-preserving surgery as being in the interest of patients, given that it allowed young women to have children and protected older women from the harmful effects of artificial menopause.<sup>92</sup> Even Henrotay, who had continued to advocate a complete hysterectomy, became aware of the long-term negative consequences that radical surgery might have for women. He declared that having observed the consequences of radical surgery in women, he had become a "non-interventionist". In the future, he

88 Edmond Rouffart, "Hydrosalpinx double. Salpingectomie avec conservation des ovaires", *BSBGO* 11 (1900–1901): 66, 98.

89 Jacobs, "Traitement opératoire du fibrome" (1903): 145–147.

90 Charles Jacobs, "Fibrome utérin. Quelques observations cliniques tirées de 633 opérations abdominales (1889–1905)", *BSBGO* 16 (1906): 73–79.

91 J. Henrotay, "Traitement du fibrome", *BSBGO* 14 (1904): 37–38.

92 Edmond Rouffart, "Myomectomie; procédé permettant d'éviter les troubles de la ménopause opératoire", *BSBGO* 23 (1912–1913): 38–45.

would only intervene radically in cases of serious lesions.<sup>93</sup> As Frampton has noted, discussions about women's health problems became worthwhile when the risk of dying following hysterectomy had diminished sufficiently.<sup>94</sup> Yet by no means did the increased attention for resection mean that radical surgery disappeared. In the twentieth century, the introduction of hormone replacement therapies and the development of sex reassignment surgeries, alongside other factors, provided new opportunities for gynaecological surgeons. Various types of radical gynaecological surgeries would proliferate across the globe.<sup>95</sup>

## 6 Conclusion

Scientists have recently argued that medicine's cultural attitude should allow for uncertainty. Doctors try to come up with the 'right' answer to a medical problem even when their data and knowledge are limited. They often ignore or downplay diagnostic doubts and the unpredictability of treatment outcomes, with detrimental effects on patients. Both within and beyond medicine, there have been calls for a change towards an approach that values openness about uncertainty and mistakes.<sup>96</sup> In seeking to achieve these objectives, it can help to take a step back and consider the origins of scientific medicine. The surgical culture of the first generation of gynaecologists reveals the co-existence of narratives of medical confidence and uncertainty in scientific settings. Gynaecological surgeons legitimised the surgical turn of the fledgling discipline by pointing to both recent achievements and doubts. They used these narratives to defend a surgical culture of experiment, and largely disregarded the health needs of patients. Based on the history of gynaecological surgery, it appears crucial that doctors engage patients in open dialogue about factors of uncertainty to foster a medical culture of individualised, patient-centred care.

93 Charles Jacobs, "Quelques observations relatives aux suites tardives d'opérations conservatrices des annexes (pièces anatomiques)", *BSBGO* 24 (1914): 339.

94 Frampton, *Belly-Rippers* (2018): 179–180.

95 Sally Frampton, "Opening the Abdomen: The Expansion of Surgery", in: Schlich (ed.), *The Palgrave Handbook of the History of Surgery* (2018): 184; Alison Downham Moore a.o., "The Global Proliferation of Radical Gynaecological Surgeries: A History of the Present", *History and Anthropology* 34 (2023), no. 4: 673–697.

96 Arabella L. Simpkin and Richard M. Schwartzstein, "Tolerating Uncertainty — The Next Medical Revolution?", *New England Journal of Medicine* 375 (2016), no. 18: 1713–1715; Jacob Stegenga, *Medical Nihilism* (Oxford: University Press 2018).

When gynaecology emerged as a surgical discipline in Belgium, gynaecological surgeons prioritized swift introduction of surgical novelties over patient interests. Advocates of conservative surgery perhaps commented more on the dangers and consequences of radical surgery for women, but they too, made choices for their patients. Consent negotiations suggest that patients were rarely informed extensively about all the available treatments or the risks of surgery. In their attempts to persuade patients to undergo surgery, physicians spoke the language of medical confidence. At the same time, case histories suggest that consent negotiations added a layer of uncertainty to surgical practice. Whereas a number of women accepted or requested dangerous operations, surgeons also encountered patients who refused to undergo surgery. Gynaecologists could never predict the outcomes of these negotiations.

Most historical work on medical uncertainty has focussed on the strategies and technology that physicians used when dealing with doubt in medical practice.<sup>97</sup> At the end of the nineteenth century, these included clinical observations to establish a diagnosis, microscopic analysis to confirm it, and the use of case statistics to calculate the risk of an operation. As I have shown, however, gynaecological publications also reveal the limits of those ‘technologies of trust’. Gynaecologists openly shared their experiences with diagnostic errors and procedures with consistently disappointing results. Some gynaecologists, in particular those who endorsed radical surgery, used these factors of uncertainty on a regular basis to justify the removal of reproductive organs. In the absence of diagnostic evidence to confirm their claims, they attached considerable weight to unproven conceptions. Similarly, the possibility of future technical improvements also became an argument in favour of radical surgical techniques for which convincing statistical evidence was lacking. Uncertainty, so it seems, was fundamental to the discourse of gynaecologists around 1900: those with a taste for radical surgery were more prepared than others to give surgery the benefit of the doubt.

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97 Schlich and Tröhler (eds.), *The Risks of Medical Innovation* (2006); Schlich, “No Time for Statistics” (2020).

# Doctor E.W. Lybeck, Vaccination Criticism, and the Bounds of Orthodox Medicine in Finland at the Turn of the Twentieth Century

*Suvi Rytty*

## 1 Introduction

The question of vaccine scepticism has recently stepped to the fore of Western social debate with the Covid-19 pandemic. However, fear, suspicion, and criticism of vaccination are nothing new, but have existed since Edward Jenner demonstrated in 1796 that inoculation with relatively mild cowpox afforded protection against deadly smallpox. He termed this preventive measure vaccination (in Latin *vacca* = cow).<sup>1</sup> Organised anti-vaccinationism only appeared when the smallpox vaccination was made mandatory,<sup>2</sup> which happened in most European countries during the nineteenth century.<sup>3</sup>

The anti-vaccination movements of the late nineteenth and early twentieth centuries were mostly formed by laymen, whereas the medical profession took on the task of defending vaccinations. Nevertheless, throughout Europe some licensed physicians also converted to the anti-vaccination position.<sup>4</sup> In spite of the increased scholarly interest in the history of vaccine

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- 1 Nadja Durbach, *Bodily Matters. The Anti-vaccination Movement in England, 1853–1907* (Durham and London: Duke University Press 2005): 4, 20; Edward A. Belongia and Allison L. Naleway, “Smallpox Vaccine: The Good, the Bad, and the Ugly”, *Clinical Medicine & Research* 1(2003), no. 2: 87–92. The Latin term used for cowpox was *variolae vaccinae* (smallpox of the cow). Later it was realised that the agent used in the smallpox vaccination was no longer the same as the cowpox virus; hence, the virus is today called ‘vaccinia’. Bertram L. Jacobs a.o., “Vaccinia Virus Vaccines: Past, Present and Future”, *Antiviral Research* 84 (2009), no. 1: 1–13.
  - 2 T. Hannikainen, “Rokotuksen vastustusliikkeestä”, *Duodecim* 30 (1914), no. 2: 64–94; Durbach, *Bodily Matters* (2005): 13, 37 and passim.
  - 3 For example, Sweden made smallpox vaccination mandatory in 1816, followed by Great Britain in 1853, and the recently formed Germany in 1874, but France only in 1902. Heikki S. Vuorinen, *Taudit, parantajat ja parannettavat. Lääketieteellinen historia* (Tampere: Vastapaino 2010): 219, 245.
  - 4 Durbach, *Bodily Matters* (2005): 157; Avi Sharma, *We Lived for the Body. Natural Medicine and Public Health in Imperial Germany* (DeKalb, IL: NIU Press 2014): 122–123.

controversies,<sup>5</sup> doubtful or critical attitudes towards vaccination among the medical profession have remained a less studied subject. This chapter addresses this research gap by focussing on the subject in early twentieth-century Finland.

In Finland, it was not until the 1910s that the anti-vaccination movement arose, originally amongst the supporters of natural healing and vegetarianism.<sup>6</sup> Finnish physicians presented a united front against the anti-vaccinationists, the only exception being one Edward Wilhelm Lybeck (1864–1919), who alongside his medical practice was also interested in natural healing and vegetarianism. The rest of the Finnish medical profession disapproved of him, and the acting director of the Finnish National Board of Health, professor Taavetti Laitinen, even reprimanded him in writing in 1911 for using his medical authority in support of anti-vaccinationism.<sup>7</sup>

The attitude of the Finnish medical practitioners towards Lybeck and anti-vaccinationism reflects the larger phenomenon that has been described as the medical monopolisation process. The term refers to a tendency to establish one true medical paradigm by constantly defining the boundaries of correct and acceptable healing, and it relates to the professionalisation of physicians.<sup>8</sup> At first, it was formal academic training that defined these boundaries. In Finland, legislation has guaranteed physicians with a university education the exclusive right to practise medicine since 1688.<sup>9</sup> Alongside formal training, the role of scientific knowledge as the definer of medical boundaries increased in importance after the mid-nineteenth-century paradigm shift from Hippocratic doctrines to scientific thinking. Healing systems, theories, and practices critical of the new scientific paradigm have since been fought and excluded from orthodox medicine as quackery; meanwhile, there has been an endeavour to

5 See, for example, Durbach, *Bodily Matters* (2005); Jacob Heller, *The Vaccine Narrative* (Nashville: Vanderbilt University Press 2008); Sharma, *We Lived for the Body* (2014); Suvi Rytty, "Rokotusvastaisuus historiallisena ilmiönä 1900-luvun alun Suomessa", *Sosiaalilääketieteellinen aikakauslehti* 57 (2020), no. 3: 215–227.

6 Rytty, "Rokotusvastaisuus historiallisena ilmiönä" (2020): 215–227.

7 "Suomen Lääkäriseuran 23:s yleinen kokous. 'Kuhnimisen' ja yleisön harhaanviemisen vastustaminen lääketieteellisissä kysymyksissä", *Uusi Suometar* (1911), no. 220: 5.

8 Eva Palmblad, *Sanningens gränser. Kvacksalveriet, läkarna och samhället. Sverige 1890–1990* (Stockholm: Carlsson 1997): 10–20. About professionalisation of physicians in Finland, see Saara-Maija Kontturi, *Lääkärikunnan synty. Suomen lääkärin n. 1750–1850* (Jyväskylä: University of Jyväskylä 2021).

9 Motzi Eklöf, "Doctor or Quack: Legal and Lexical Definitions in Twentieth-Century Sweden", in: Robert Jütte, Motzi Eklöf, and Marie C. Nelson (eds.), *Historical Aspects of Unconventional Medicine: Approaches, Concepts, Case Studies* (Sheffield: European Association for the History of Medicine and Health Publications 2001): 105–106.

keep the medical profession clean from doctrines, cures, or healers considered unorthodox.<sup>10</sup>

Evolving medical knowledge has contributed to medical novelties, which are typically surrounded by uncertainty and sometimes by controversy. This is certainly true for the smallpox vaccination.<sup>11</sup> The anti-vaccination movements made good use of these uncertainties by appealing for example to the statements presented by internationally known vaccine-critical medical professionals.<sup>12</sup> An examination of vaccine criticism therefore offers a good way of making medical uncertainties visible.<sup>13</sup> First, this chapter studies what made Lybeck a vaccination critic despite his medical education, and how he made use of medical uncertainties in his vaccine criticism. Second, this chapter examines how the Finnish medical profession discussed the vaccination question and analyses what kind of critique, doubt, or uncertainty concerning vaccination was allowed within the confines of the medical profession, and at what point it became heresy.

The research period covers the medical/natural healing career of Lybeck from 1895 to his death in 1919. The source material consists of: 1) the medical journals *Terveydenhoitolehti*<sup>14</sup> and *Duodecim*<sup>15</sup> that were published by the Finnish Medical Society *Duodecim* and contained some medical writings from Lybeck, as well as discussions about vaccination and vaccine criticism; 2) digitised newspaper articles<sup>16</sup> concerning the vaccination question, written by or about Lybeck; and 3) the periodicals *Terveys* and *Luonnonparantaja* (after 1915 *Parantaja*), which were published by the supporters of natural healing and vegetarianism and presented an approving forum for Lybeck's vaccine-critical writings. The focus is on smallpox vaccination, which at the time was the only

10 Palmblad, *Sanningens gränser* (1997): 10–20.

11 Michael Worboys, *Spreading Germs. Disease Theories and Medical Practice in Britain, 1865–1900* (Cambridge: University Press 2000): 119, 123, 243–246.

12 “160 lääkärin ja lääketieteen professorin lausuntoja rokotuksesta”, *Terveys* 3 (1913), no. 7–8: 54–56; “215 lääkärää Italiassa vastustavat julkisesti rokotusta”, *Terveys* 9 (1919), no. 6: 7–9; Worboys, *Spreading Germs* (2000): 245–246; Durbach, *Bodily Matters* (2005): 157.

13 This is also a common argument for the usefulness of controversial scientific studies, expressed for instance in Steven Shapin and Simon Schaffer, *Leviathan and the Air-Pump: Hobbes, Boyle, and the Experimental Life* (Princeton NJ: University Press 1985).

14 The aim of *Terveydenhoitolehti* was to raise awareness of hygiene and healthcare among the general public.

15 *Duodecim* was a professional journal for Finnish-speaking physicians (as distinct from Swedish-speaking ones).

16 The Newspaper Collection of the National Library of Finland contains newspapers published from the late 1700s to today. The newspapers are available online in the [digi.kansalliskirjasto.fi](http://digi.kansalliskirjasto.fi) service.



FIGURE 8.1  
Edward Wilhelm Lybeck (1864–1919).  
SOURCE: PICTURE ARCHIVE OF THE KIRVU  
FOUNDATION (KIRVU-SÄÄTIÖ). PHOTOGRAPHER  
UNKNOWN

vaccination given to the whole population, as well as the only compulsory one in Finland.<sup>17</sup> It was therefore the primary target of vaccine criticism.

## 2 Doctor Lybeck on the ‘Wrong Track’

Edward Wilhelm Lybeck (see Figure 8.1) was a member of two medical societies, the Medical Society of Finland (*Finska Läkaresällskapet /Suomen Lääkäri-seura*) and the Finnish Medical Society Duodecim (*Suomalainen Lääkäri-seura Duodecim*).<sup>18</sup> After Lybeck’s death in 1919 his colleagues commemorated him in a meeting of the Medical Society Duodecim with these telling words:

L.[ybeck] was undoubtedly talented and quite a character in many respects, but his enthusiasm eventually led him onto the wrong track of the natural healer, thus cutting the ground from under his feet. The

17 Helene Laurent, *Asiantuntijuus, väestöpolitiikka, sota. Lastenneuvoloiden kehittyminen osaksi kunnallista perusterveydenhuoltoa 1904–1955* (Helsinki: Unigrafia 2017): 177, 270–271.

18 “Årsberättelse för 1895”, *Finska Läkaresällskapets Handlingar* 38 (1896), no. 2: 89; “Vuosiker-tomus Duodecim-seuran toimintakaudelta 18.11.1918–18.11.1919”, *Duodecim* 36 (1920), no. 1: 75.

society remembers with sorrow this member whose life was in some respects tragic but could have been fruitful had it been correctly steered.<sup>19</sup>

Lybeck's medical career began promisingly in Helsinki at his own private hospital, Kammio-Tallbacka, intended for patients suffering from nervous disorders and mental illnesses.<sup>20</sup> Judging by the case studies he published in the professional journal *Duodecim*, he was keen to advance medicine as a science.<sup>21</sup> However, after 1904 things started to change. Lybeck left the capital and opened a kind of experimental farming colony for tranquil mental patients in the backwoods of Ruovesi. When this experiment failed, Lybeck turned the establishment into a natural healing sanatorium around 1910 and advertised it as suitable for patients suffering from rheumatism, neurasthenia, heart conditions, digestive disorders, or kidney problems. Mental patients were no longer accepted.<sup>22</sup> From 1910, Lybeck also began to criticise vaccination in public.<sup>23</sup>

Natural healing was a complex of preventive and healing practices that had developed from hydropathy in mid-nineteenth-century Germany. It centred around therapies based on water, fresh air, sunlight, and a vegetarian diet, and was pioneered and practised primarily by laypeople. Its alternative conception of disease and its criticism of regular medicine were a fertile breeding ground for anti-vaccinationists.<sup>24</sup> It was the guidebook *New Science of Healing* by the German natural healer Louis Kuhne, translated to Finnish in 1906, that kick-started a veritable natural healing craze in Finland. Although Kuhne's healing did attract some following among the working class and peasantry, most

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- 19 "Vuosikertomus Duodecim-seuran toimintakaudelta 18.11.1918–18.11.1919" (1920): 75.
- 20 Kalle Achté, Jorma Rantanen and Tapani Tamminen, *Luontaishoidon isä, tohtori E. W. Lybeck, Elämänmäen parantaja* (Jyväskylä: Recallmed Oy 1994): 62–90, 127–130.
- 21 Edward Wilhelm Lybeck, "Köyhäin mielenvikaisten hoidosta Skotlannissa", *Duodecim* 12 (1896), no. 3: 61–73; Edward Wilhelm Lybeck, "Hysterinen hemianopsiatapaus", *Duodecim* 12 (1896), no. 7: 161–169; Edward Wilhelm Lybeck, "Nitroglycerinin avulla hoidettu arteriosclerositapaus [...] ", *Duodecim* 13 (1897), no. 2: 33–38; Edward Wilhelm Lybeck, "Kuppataudin tuottama homonymi – hemianopsia-tapaus [...] ", *Duodecim* 13 (1897), no. 4: 127–136; Edward Wilhelm Lybeck, "Valekuolemasta ja muutamista kuoleman tuntomerkistä", *Duodecim* 14 (1898), no. 2: 49–51.
- 22 "Luonnonparantola ja Kesäkoti", *Uusi Suometar* (1910), no. 64: 2; "Luonnonparantola ja Kesäkoti", *Helsingin Sanomat* (1910), no. 65: 1; Achté, Rantanen and Tamminen, *Luontaishoidon isä* (1994): 128–131.
- 23 "Tohtori Lybeck Laihialla", *Vaasa* (1910), no. 56: 2–3; "Tohtori Lybeckin esitelmä luonnonparannuksesta", *Karjala* (1910), no. 135: 3; "Päivän uutisia", *Kotimaa* (1911), no. 117: 4.
- 24 Avi Sharma, "Medicine from the Margins? *Naturheilkunde* from Medical Heterodoxy to the University of Berlin, 1889–1921", *Social History of Medicine* 24 (2011), no. 2: 334–337; Sharma, *We Lived for the Body* (2014): 20–39, 114–140.

Finnish followers of Kuhne, known by the pejorative nickname “*kuhniijat*”,<sup>25</sup> came from the middle class.<sup>26</sup>

At the beginning of the second decade of the twentieth century, the Finnish advocates of natural healing and vegetarianism began to organise themselves by publishing magazines (*Terveys* and *Luonnonparantaja/Parantaja*) and setting up associations and natural healing sanatoriums. Their most notable sanatorium was established in Kirvu in the Karelian Isthmus in 1911, and their most prominent organisation, the Vegetarian Association of Finland (*Suomen Vegetaarinen Yhdistys*), was founded in 1913. Despite its name, the association also sought to promote natural healing, anti-vaccinationism and temperance, which were seen as integral parts of vegetarianism – when it was understood as synonymous with the wider concept of a natural lifestyle. The leading figures of this Finnish natural lifestyle movement were the editor of *Terveys* Anna Kurimo, the editor of *Luonnonparantaja/Parantaja* Sampsu Luonnonmaa, natural healers Maalin Bergström and Oskari Johnsson, and Dr. E.W. Lybeck.<sup>27</sup>

Lybeck primarily gained his reputation as the leading figure of Finnish natural healing and lifestyle by touring the country and giving public lectures on his favourite subjects: temperance; sexual probity; health reform through clothing; vegetarianism; the use of natural healing methods; and anti-vaccinationism.<sup>28</sup> Lybeck proved a brilliant, captivating, and therefore also much sought-after speaker who always drew large audiences, in part also due to his eccentric appearance, which made him a living example of a natural lifestyle: he was a tall and handsome man with a beard and long hair, wore neither a hat nor shoes, and preferred so-called ‘reform clothes’, made from coarse cloth and imitating ancient peasant dress.<sup>29</sup> Lybeck’s appointment in 1911 as the chief physician in the new Kirvu natural healing sanatorium appeared to confirm

25 In Finnish, ‘kuhniija’ also refers to a person who is lazy and sluggish.

26 Suvi Rytty, *Ruumiista reformiin. Suomalaiset elämänuudistajat, luonnonmukainen ruumiinmuokkaus ja modernisaation ongelma, 1910–1932* (Turku: University of Turku 2021): 63–70.

27 Rytty, *Ruumiista reformiin* (2021): 13, 71–97.

28 “Raittiusjuhlat Pohjolassa”, *Kansalainen* (1906), no. 75: 3; “Tohtori Lybeck”, *Salmatar* (1908), no. 137: 3; “Luentokursseilla kr. työv. yhdist. huoneistossa”, *Työkansa* (1909), no. 28: 2; “T:ri E. Lybeckin esitelmää”, *Keski-Suomi* (1909), no. 131: 2; “Tohtori Lybeckin esitelmä luonnonparannuksesta”, *Karjala* (1910), no. 135: 3; Jouko (pseudonym), “Tohtori Lybeck”, *Jokamiehen Viikkolehti* (1910), no. 46: 369; Achte, Rantanen and Tamminen, *Luontaishoidon isä* (1994): 94–95.

29 “Suur-Savon lomakurssit, kolmas luentopäivä”, *Suur-Savo* (1907), no. 3: 2; “Luentokursseista”, *Etelä-Suomi* (1907), no. 34: 2; “Tohtori Lybeck”, *Otava* (1908), no. 138: 3; Wiki (pseudonym), “Lomakurssipakinaa”, *Hämetär* (1909), no. 2: 4; Jouko (pseudonym), “Tohtori Lybeck” (1910): 368–369.

his defection from the medical profession to the natural healing movement,<sup>30</sup> for, according to the local district physician, the Kirvu sanatorium was a veritable “den of quacks”.<sup>31</sup>

The popularity of natural healing worried many Finnish physicians because it was primarily practised by laymen with no medical training, and it was based on a conception of disease that blamed faulty lifestyles rather than germs. All diseases were curable with natural healing methods. The supporters of natural healing and lifestyle also claimed that medicines and smallpox vaccination were dangerous to health.<sup>32</sup> In public discussion, Lybeck’s anti-vaccination lectures were especially blamed for the decline of the proportion of vaccinated children that had occurred in Finland at the beginning of the twentieth century.<sup>33</sup> How the medically trained Lybeck could join forces with Kuhne’s followers and believe in Kuhne’s unscientific doctrines was also a source of wonder, both publicly and among the Finnish medical profession.<sup>34</sup>

Part of the answer lies in the natural healing methods themselves, for they did not significantly differ from those practiced in regular medicine under the name of physical methods. The main difference was that the latter were used in accordance with the medical conception of disease and by a licensed physician.<sup>35</sup> The roots of physical methods lay partly in the ancient doctrine of dietetics, according to which it was possible to regulate one’s state of health

30 “Kirvun luonnonparantola”, in: *Suuntaviivoja. Aatteellinen erikoisjulkaisu Terveiden 20-vuotisen ilmestymisen johdosta* (Oulu 1930): 6; Hilma Räsänen, *Maalin Bergström. Ihminen ja parantaja* (Porvoo: WSOY 1941): 151–155, 179, 241, 269–273, 281.

31 Helsinki, National Archives of Finland, Archives of the I Bureau of the National Board of Health, Eba 66: *Antrean pürilääkärin vuosikertomus* (1911); Suvi Rytty, “Puoskarointia vai puhdasta auttamisen halua? Luonnonparantaja Maalin Bergström ja laittoman lääkärintoimen harjoitus 1900-luvun alun Suomessa”, in: Markku Hokkanen and Kalle Kananoja (eds.), *Kiistellyt tiet terveyteen. Parantamisen moninuuotoisuus globaalihistoriassa* (Helsinki: SKS 2017): 147–148.

32 Rytty, “Puoskarointia vai puhdasta auttamisen halua?” (2017): 141–145.

33 “Isonrokon kiertokulku Karjalassa. Rokko levenee nopeasti”, *Helsingin Sanomat* (1911), no. 143: 7; “Tauti vieraana Karjalassa”, *Turun Sanomat* (1911), no. 1948: 1; Joppi (pseudonym), “Ammattilääkäri – luonnonlääkärinä”, *Työ* (1911), no. 147: 2; Kari Pitkänen, “Myrkkyä, sanoi tohtori Lybeck. Rokotustaistelu Suomessa 1900-luvun alkuvuosikymmenillä”, in: Matti Peltonen (ed.), *Arki ja murros. Tutkielmia keisariajan lopun Suomesta* (Helsinki: SHS 1990): 123, 128–132.

34 Helsinki, National Archives of Finland, Archives of the I Bureau of the National Board of Health, Eba 65: *Pyhän Antrean pürilääkärin vuosikertomus* (1910); Joppi (pseudonym), “Ammattilääkäri – luonnonlääkärinä” (1911): 2; “Kuhne-humpuuki”, *Työmies* (1911), no. 179: 2; “Suomen Lääkäriseuran 23:s yleinen kokous” (1911): 5.

35 Ernst Therman, “Luonnonparannus”, *Tietosanakirja V* (Helsinki: Otava 1913): 1243–1245.

with correct lifestyles.<sup>36</sup> In part, the physical methods were medical variants of water cure and other natural healing methods, whose popularity from the early nineteenth century had also encouraged Western physicians to become familiar with, and to practise them.<sup>37</sup> At the beginning of the twentieth century, especially in Germany, many young physicians developed an interest in natural healing methods because, despite all the progress in medical knowledge, medical therapies had developed very little, leaving physicians still relatively helpless in the face of most diseases. In Germany, this medical interest in the healing power of nature led to the creation of a chair for Physical and Dietary Therapies at the University of Berlin in 1920.<sup>38</sup>

According to Lybeck himself, he became acquainted with natural healing methods early on in his medical career, when he took on the medical practice at the Vaanila hydropathic institution during the summer months.<sup>39</sup> Later, he also used hydrotherapy in his private hospital, Kammio-Tallbacka in Helsinki.<sup>40</sup> So it seems that, at least at first, Lybeck did not perceive his interest in natural healing as something outside the bounds of regular medicine. Even after he was profiled as the leading figure of the Finnish natural healing and anti-vaccination movement, he did not entirely abandon medicine or its teachings. For example, he did not accept Louis Kuhne's outdated and naive theories about disease at face value. He believed that because of their medical knowledge physicians ought to direct the natural healing enthusiasm of the common people, weed out all the nonsense, and make use of the "grains of gold" this healing system contained.<sup>41</sup>

However, one aspect of the natural healing ideology appealed to Lybeck above others: the idea of the interconnection of body and soul, as well as of health and morals. Lybeck was a deeply religious man who was drawn to Finnish Pietist revivalism, but he was also interested in theosophy, the Tolstoyan

36 Harold Cook, "Physical Methods", in: William F. Bynum and Roy Porter (eds.), *Companion Encyclopedia of the History of Medicine, Vol. 1 & 2* (London / New York: Routledge 2001): 940–945.

37 Uwe Heyll, *Wasser, Fasten, Luft und Licht. Die Geschichte der Naturheilkunde in Deutschland* (Frankfurt / New York: Campus Verlag 2006): 13–28, 33–34, 59–87.

38 Sharma, "Medicine from the Margins?" (2011): 334–337.

39 Edward Wilhelm Lybeck, "Istumakylvyt, niiden käyttäminen ja vaikutus", *Duodecim* 27 (1911), no. 5–6: 184–185. In early twentieth-century Finland all sanatoriums, spas, or hydrotherapeutic institutions had to be led by a medically trained physician to have a licence to operate. Niilo Pesonen, *Piirilääkärinä Suomessa* (Porvoo/Helsinki/Juva: WSOY 1990): 110–111.

40 "Tallbacka nya sjukpaviljong för nervsjuka", *Hufvudstadsbladet* (1902), no. 329: 4–5.

41 Edward Wilhelm Lybeck, "Vielä sananen 'Kuhnimisesta'", *Terveystenhoitolehti* 23 (1911), no. 1: 13; Lybeck, "Istumakylvyt, niiden käyttäminen ja vaikutus" (1911): 184–187, 197.

movement, and the occult. Like many of the supporters of natural lifestyle, he was a “truth-seeker” (*totuuden etsijä*),<sup>42</sup> which was a term used by his contemporaries. It referred to the spiritual search related to the experience of the spiritual vacuum that had been created by secularisation and modernisation. Truth-seekers sought purer religiosity, more authentic forms of Christianity, and ways to bridge the gap between science and religion.<sup>43</sup>

Lybeck was convinced he had found the truth in natural healing and lifestyle, as he believed they concurred with God’s will and therefore rewarded people with health. Scientific progress, on the contrary, distanced Western medicine from the age-old alliance of health and morality by reducing medicine to a laboratory science and claiming that diseases were caused by bacteria that picked out their victims randomly, not caring whether people lived virtuous or dissolute lives.<sup>44</sup> In many respects, Lybeck sought to combine natural healing with regular medicine by finding justification for natural healing in scientific research. This was especially noticeable in his vaccine criticism, which he strove to validate by referring not just to the scientific knowledge of the smallpox vaccination, but also to the lack of it.<sup>45</sup>

### 3 Medical Uncertainty about Smallpox Vaccination

Today, vaccines are considered to represent the triumph of germ theory. However, Edward Jenner introduced his smallpox vaccination in the 1790s, long before any knowledge of microbes or any theoretical understanding of immunity. The smallpox vaccine was based entirely on the empirical observation that cowpox afforded protection against smallpox. The method of vaccination was borrowed from the earlier practice of variolation (also called inoculation), in which lymph material from the smallpox pustules was introduced into the body for instance by scratching it into the skin of the upper arm to induce a

42 Edward Wilhelm Lybeck, “Uskontunnustukseni”, *Terveys* 1 (1911), no. 1: 1–5; Rytty, *Ruumiista reformiin* (2021): 170.

43 Nina Kokkinen, “Artists as Truth-Seekers: Focusing on Agency and Seekership in the Study of Art and Occulture”, *Approaching Religion* 11 (2021), no. 1: 4–27; Rytty, *Ruumiista reformiin* (2021): 171.

44 Edward Wilhelm Lybeck, “Uskontunnustukseni” (1911): 1–5; Edward Wilhelm Lybeck, “Muut parantajat ja lääkärit”, *Terveys* 2 (1912), no. 1: 2–3; Edward Wilhelm Lybeck, “Muut parantajat ja lääkärit, jatkoa”, *Terveys* 2 (1912), no. 2: 9–11.

45 Lybeck, “Muut parantajat ja lääkärit” (1912): 2–3; Lybeck, “Muut parantajat ja lääkärit, jatkoa” (1912): 9–11; Edward Wilhelm Lybeck, “Rokotus-pakko. Lainlaadinta tällä alalla muutettava”, *Uusi Suometar* (1914), no. 97: 7.

mild case of smallpox. Jenner just modified this practice by substituting cowpox for smallpox.<sup>46</sup>

The germ theory itself did not become established overnight or without problems. Indeed, between 1865 and 1900 there were many germ theories about disease, and early theories especially suffered from great uncertainty about what disease germs were (chemical poisons, ferments, degraded cells, fungi, 'bacteria', or parasites), and whether they were a cause or consequence of disease. After 1880 there was a growing consensus in medicine that many diseases were caused by the introduction of certain microorganisms into the body, and that most disease germs were 'bacteria'. However, there were still unresolved questions such as the disease-causing mechanisms of bacteria, and why germs did not invariably produce disease.<sup>47</sup>

This medical uncertainty also concerned the smallpox vaccination. Indeed, according to Michael Worboys, the developing knowledge about bacteria brought more questions than answers. Although Louis Pasteur's research in the latter part of the nineteenth century established the term vaccination for all forms of protective inoculations with altered germs and launched the development of new vaccines, the pathogens of both smallpox and cowpox remained unknown. Microscopic research on cowpox lymph and the content of smallpox pustules revealed many microorganisms, none of which could be identified as the specific germ of vaccinia or variola.<sup>48</sup> Indeed, it was only in the late 1930s that the smallpox virus (a sub-microscopic infectious agent much smaller than a bacterium) could be seen and identified with the new electron microscope.<sup>49</sup> In Finnish medical periodicals also, some physicians admitted as late as in 1917 that the pathogens of "acute eczemas" such as scarlet fever, measles, and smallpox remained unknown, possibly because they were too small to be observed with a microscope at the time.<sup>50</sup>

The gaps in medical knowledge also extended to immunity, which was reflected in the understanding of the smallpox vaccination's modes of action. Theories of immunity started to take shape in the 1880s, and there were many of them. One of the most prominent was Élie Metchnikoff's phagocytic theory, according to which white blood cells sought out and ingested invading microorganisms. Nevertheless, Pasteur's success in 1886 with his rabies vaccine,

46 Durbach, *Bodily Matters* (2005): 19–20, 158; Sharma, *We Lived for the Body* (2014): 117–118.

47 Worboys, *Spreading Germs* (2000): 1–6.

48 Worboys, *Spreading Germs* (2000): 119, 123, 243–246.

49 Durbach, *Bodily Matters* (2005): 162.

50 Rob. Elmgren, "Desinficioimisesta maaseudulla", *Duodecim* 22 (1906), no. 8–9: 188; Yrjö Levander, "Piirteitä kulkutautien luonteesta, historiasta ja vastustamisesta", *Terveystieteiden aikakauslehti* 29 (1917), no. 7–9: 120.

which seemed able to stop the infection from manifesting itself, lent support to the poison and antidote model. The assumption was that due to a chemical process, the rabies vaccine either neutralised the toxins of the pathogen of rabies or inhibited the pathogen, making it unable to produce toxins. The theory was explored in laboratories around Europe, which in 1894 led to the development of the diphtheria antitoxin.<sup>51</sup>

Today it is known that the weakened or inactive parts of a particular organism (antigen) in vaccines trigger an immune response within the body,<sup>52</sup> whereas serum therapy takes disease-fighting chemicals (antibodies) from the blood of recovered patients and transfers them to the sick to boost the body's natural antitoxic reactions.<sup>53</sup> Amidst the various theories of immunity, medical knowledge about the mechanism of smallpox vaccination remained somewhat vague at the beginning of the twentieth century, among Finnish medical practitioners also. For example, Doctor Fredrik Joel Pätiälä assumed that vaccines might produce immunity, as in serum therapy, and Doctor Konrad ReijoWaara referred to the smallpox vaccine as an artificial antitoxin against the "poison of smallpox".<sup>54</sup> 'Poison' in medical language was derived from the Latin word 'virus', which before its current meaning referred to a pathogen that was assumed to be a chemical agent in the blood spreading its effects on all tissues.<sup>55</sup>

By modern standards it may seem odd that the smallpox vaccine was widely used and even made mandatory, even though nobody knew exactly what it contained, or how it worked in the body. Even after the new bacteriological techniques introduced in the 1880s, the nature of the smallpox germ or the mechanism of smallpox vaccination stirred surprisingly little interest.<sup>56</sup> To most physicians, Finnish or otherwise, this uncertainty about smallpox vaccination posed no serious problem as smallpox was easily diagnosed and known to be contagious but also preventable – with vaccination.<sup>57</sup> Furthermore, the

51 Worboys, *Spreading Germs* (2000): 219–220.

52 World Health Organization, "How do Vaccines Work?" (8.12.2020), <https://www.who.int/news-room/feature-stories/detail/how-do-vaccines-work> (accessed on 23.8.2022).

53 Bert Hansen, "The Story of Serum Therapy", *Distillations Magazine* (28.4.2020), <https://www.sciencehistory.org/distillations/the-story-of-serum-therapy> (accessed on 12.1.2023).

54 Fredrik Joel Pätiälä, "Immuneiteetista ja veriseerumiterapiasta", *Duodecim* 10 (1894), no. 2: 33–41; Konrad ReijoWaara, "Isosta rokosta ja rokotuksesta", *Terveystieteiden aikakauslehti* 24 (1912), no. 7–8: 97–98.

55 Worboys, *Spreading Germs* (2000): 118.

56 Worboys, *Spreading Germs* (2000): 240–245; Durbach, *Bodily Matters* (2005): 159–160.

57 ReijoWaara, "Isosta rokosta ja rokotuksesta" (1912): 97–99; Levander, "Piirteitä kulkutautien luonteesta" (1917): 120; Worboys, *Spreading Germs* (2000): 244.

criteria for scientific certainty were different from what they are today. However, inadequate medical knowledge concerning smallpox vaccination left room for doubt and criticism – not only among medically untrained laymen, but also among licensed physicians. These doubts and criticisms mainly concerned questions of the safety, efficacy, necessity, and compulsion of the smallpox vaccination.

#### 4 The Question of Safety

Nowadays, inoculation with the vaccinia virus is known to be highly effective in preventing smallpox infection, but it is also associated with several side effects, ranging from mild to serious and even potentially life-threatening reactions.<sup>58</sup> At the beginning of the twentieth century, based on general observations and experiences, there was an awareness that the smallpox vaccination sometimes had adverse effects. Finnish physicians who discussed vaccination in the country's medical journals at the time, did acknowledge that the smallpox vaccine could sometimes cause adverse effects such as inflammation of the skin or a high fever. Older district physicians especially knew from their own experience that vaccinated children sometimes started in an "unclear way to suffer and ail".<sup>59</sup> It was therefore advisable not to vaccinate children who were already weak or sickly, or who were recovering from fever. Eczema and other skin conditions were especially known to be worsened by vaccination.<sup>60</sup>

Adverse effects were the main theme of anti-vaccination campaigns.<sup>61</sup> The Finnish anti-vaccinationists claimed that vaccination made children weak and sickly and caused persistent rashes, inflammation of the skin, and sometimes even death. These claims were mainly based on the experiences of the parents of the vaccinated children, but also on the statements of foreign physicians who had turned into opponents of compulsory smallpox vaccination due to

58 Belongia and Naleway, "Smallpox Vaccine" (2003): 87–92; Centers for Disease Control and Prevention (CDC), "Side Effects of Smallpox Vaccination" (12.7.2017), <https://www.cdc.gov/smallpox/vaccine-basics/vaccination-effects.html> (accessed on 25.8.2022).

59 Konrad ReijoWaara, "Onko meillä syytä jatkaa kaikkien lasten pakollinen rokottaminen tähänastiseen tapaan", *Terveystieteiden lehti* 20 (1908), no. 9: 136. See also Konr. Relander, "Rokottamisesta", *Duodecim* 1 (1885), no. 5: 49–52.

60 ReijoWaara, "Isosta rokosta ja rokotuksesta" (1912): 103; Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 69.

61 Durbach, *Bodily Matters* (2005): 41, 47–68 and passim.



FIGURE 8.2 Kuhne bathing in the Kirvu natural healing sanatorium.  
SOURCE: PICTURE ARCHIVE OF THE KIRVU FOUNDATION (KIRVU-SÄÄTIÖ).  
PHOTOGRAPHER UNKNOWN

their own experiences of its use.<sup>62</sup> Although both opponents and supporters of vaccination may have shared the same observations concerning these adverse effects, the explanations for why and how these came about varied according to their differing conceptions of disease and worldviews.

The Finnish anti-vaccinationists claimed – according to the natural healing concept of disease, which was influenced by the old Hippocratic theories – that all illness was caused by impurities, ‘foreign matter’, which disturbed the normal balance and function of the body and its organs. The main carriers of these impurities into the body were bad air, meat, alcohol, tobacco, and coffee, as well as medical drugs, serums, and vaccines (see Figure 8.2).<sup>63</sup> Smallpox vaccination was believed to contaminate the blood, which explained not only the

62 M – i (pseudonym), “Mistä syystä kansa rokotusta vastustaa”, *Luonnonparantaja* 1 (1912), no. 2: 27–29; “Rokotuksen vaarallisuus”, *Luonnonparantaja* 1 (1912), no. 6: 90–91; “160 lääkärin ja lääketieteen professorin lausuntoja rokotuksesta” (1913): 54–56; “215 lääkärinä Italiassa vastustavat julkisesti rokotusta” (1919): 7–9.

63 Louis Kuhne, *Uusi lääketiede eli oppi tautien yhtenäisyydestä ja niiden siihen perustuvasta parantamisesta ilman lääkkeitä ja leikkauksia* (Hämeenlinna: Arvi A. Karisto 1910): 20–36; Rytty, *Ruumiista reformiin* (2021): 113–122.

adverse effects right after the vaccination, but also diseases that appeared even years later, such as diphtheria, syphilis, leprosy, cancer, or tuberculosis, for the “vaccine poison” could remain hidden in the body for many years without any sign of illness. Indeed, in the eyes of the Finnish anti-vaccinationists, the compulsory smallpox vaccination explained why pulmonary tuberculosis formed a major public health problem in early twentieth-century Finland – as well as why the population of industrial countries were allegedly plagued by physical, mental, and moral decay, known at the time as degeneration.<sup>64</sup>

Finnish physicians usually denounced most anti-vaccination arguments as unscientific, incoherent, childish, or lacking proof. Because medical practitioners relied on a scientific conception of disease and worldview, they could not accept the anti-vaccinationists’ claims that vaccination was also the root cause of those diseases that appeared much later in life, such as tuberculosis or cancer. They emphasised that many ailments and diseases that appeared after vaccination were probably just coincidences. This applied to common children’s diseases like measles, scarlet fever, and diphtheria, for example.<sup>65</sup> Previous research has observed, that although medical practitioners admitted that some adverse effects were related to the smallpox vaccination, they tended to downplay them. The lack of scientific facts meant it was difficult to deduce which ailments were really the consequence of vaccination and what the crucial factor behind the adverse effects was: the active substance, the content of the vaccine lymph, the operating technique, the vaccinator, the “disposition” of the vaccinee, or poor care of vaccination wounds.<sup>66</sup>

In 1911, a public debate arose in Finland concerning the death of a two-year-old child after being given the smallpox vaccination. Even Professor Laitinen, the acting director of the National Board of Health, took a stand on this case. He suggested the death was probably the result of many factors. First, the vaccine lymph must have been too fresh and therefore too powerful. Second, the vaccinator must have inoculated the vaccine lymph too deeply when it should have been inoculated on the surface of the skin. And third, the child must already have been weak and ailing, for otherwise it would not have died.<sup>67</sup> A

64 “Rokotuksen turmiollisuus”, *Terveys* 2 (1912), no. 5: 33–37; “Rokotuksen seurauksia”, *Luonnonparantaja* 3 (1914), no. 3–4: 57–58; Oskari Jalkio, “Keuhkotauti, sen syyt ja luonnonmukainen hoito”, *Terveys* 14 (1925), no. 9–10: 127; Rytty, *Ruumiista reformiin* (2021): 99–103, 128–129.

65 Ernst af Hällström, “Suojelusrokotuksesta”, *Terveydenhoitolehti* 23 (1911), no. 8–9: 115–116; Hannikainen, “Rokotuksen vastustusliikkeestä” (1914): 67–68.

66 Sharma, *We Lived for the Body* (2014): 124–127.

67 “Rokotuksen aiheuttama kuoleman tapaus Kannuksessa. Lääkintöhallituksen päätirehtöörin ajatus”, *Uusi Suometar* (1911), no. 153: 2.

week later it was reported in another newspaper – and later in the medical journal *Terveystieteiden lehti* – that according to a “medical examination”, the child had died of “blood poisoning” caused by dirt in the vaccination wound. It was emphasised that the fault had not lain with the vaccine lymph or with the vaccinator after all, but with the poor care of the vaccination wound – in other words with the child’s parents.<sup>68</sup>

In his criticism of vaccines, Lybeck balanced between natural healing ideology and scientific medical knowledge. In line with natural healing doctrines, he referred to smallpox vaccine as “dirt” that contaminated the blood, whilst he also considered bacteriological laboratories and serum plants for the manufacture of vaccines “ [...] as unnecessary as I find breeding plants for lice and cockroaches [...]”.<sup>69</sup> He again endeavoured to justify his argument with scientific research by identifying “dirt” with bacteria:

[...] it is impossible to get completely pure vaccine lymph because there’s no such thing. The only thing every authority affirms is that even the purest vaccine lymph contains a large quantity of all kinds of microorganisms whose pathogenicity, when they end up in the blood, is unknown. It is quite certain, and even the authorities seem to admit this, that these microorganisms often cause tuberculosis, meningitis, kidney diseases, erysipelas, general weakness, etc.<sup>70</sup>

It was true that different microorganisms were discovered in the vaccine lymph during the latter part of the nineteenth century. For some time, it remained unclear what these organisms and their effects were, and how they were related to the pathogen of cowpox. Many medical practitioners were inclined to believe that these organisms were non-pathogenic, but the anti-vaccinationists used these bacteriological findings to support their cause.<sup>71</sup> As Nadja Durbach has observed, it is too simplistic to categorise anti-vaccinationists as opponents of germ theories, because many anti-vaccinationists incorporated the discourse of germs into their own understanding of the nature of disease.<sup>72</sup> Early twentieth-century Finnish supporters of natural healing also used the knowledge of bacteria simplistically. They claimed that the facts, that most

68 “Muualta Suomesta. Se Kannuksen rokotusjuttu”, *Sorretun Voima* (1911), no. 77: 3; Hällström, “Suojelusrokotuksesta” (1911): 116.

69 Lybeck, “Muut parantajat ja lääkärit, jatkoa” (1912): 10.

70 Lybeck, “Rokotus-pakko” (1914): 7.

71 Worboys, *Spreading Germs* (2000): 245–246.

72 Durbach, *Bodily Matters* (2005): 157.

diseases were caused by bacteria, and many bacteria had been found in the vaccine lymph, proved that smallpox vaccination was indeed the source of multiple diseases.<sup>73</sup>

These bacteriological findings fed public fears that vaccination might carry or induce other diseases such as syphilis, erysipelas, tuberculosis, glanders, and whooping cough. These fears had an older foundation in observations that the original Jennerian vaccination, where the vaccine lymph had been taken from the pustules of vaccinated humans, had in some cases transferred other diseases such as syphilis from person to person. When this danger became known, the vaccine began to be produced on the skin of animals, mostly calves. However, the animal lymph did not resolve the problem of the unwanted organisms. Eventually, public fears forced medical scientists throughout Europe to find ways of disinfecting these contaminants from the vaccine lymph. One answer was found in the glycerination of the vaccine lymph, which managed, to some extent, to reduce the number of harmful bacteria without destroying the action of the essential organism in the vaccine.<sup>74</sup>

Judging by Finnish medical journals, the purity of the vaccine lymph seemed not to have been as decisive a point to the medical practitioners as it was to the public. Only one physician, Maunu af Heurlin, discussed the matter in 1912 in *Duodecim*. In Heurlin's opinion, researchers had exaggerated the relevance of the bacteria, for although they looked like pyogenic bacteria such as Staphylococcus and Streptococcus, their virulence had not been found to be very high. Besides, glycerination already offered one solution to reduce the amount of bacteria found in the lymph, as did improving the level of hygiene in the vaccine production process. Moreover, Heurlin continued, according to the latest research there was no scientific proof that the vaccine lymph transferred tetanus or tuberculosis to vaccinees. It remained an open question, whether the inflammatory reaction following smallpox vaccination was caused by the active substance or unwanted bacteria in the vaccine. However, the problem

73 "Tiedemiesten lausuntoja rokotuksesta", *Luonnonparantaja* 2 (1913), no. 2–3: 38–39; "160 lääkärin ja lääketieteen professorin lausuntoja rokotuksesta" (1913): 54–56; "215 lääkäriä Italiassa vastustavat julkisesti rokotusta" (1919): 7–9.

74 Worboys, *Spreading Germs* (2000): 246–247; Durbach, *Bodily Matters* (2005): 161–162. Sydney Arthur Monckton Copeman, an English government bacteriologist reported at the Seventh International Congress of Hygiene and Demography in 1891 his observations that storing vaccine lymph in 50% chemically pure glycerine reduced the number of 'extraneous' bacteria while leaving the efficacy of the lymph undiminished. Arthur Salusbury MacNalty and James Craigie, "Sydney Arthur Monckton Copeman 1862–1947", *Biographical Memoirs of Fellows of the Royal Society* 6 (1948), no. 17: 39–41.

was solved if children were vaccinated when they were new-born, because the inflammatory reaction, regardless of its cause, was then smaller.<sup>75</sup>

## 5 Controversy over Efficacy Highlighted by Statistics

[...] even against my will I have to admit that vaccination is the biggest delusion into which medicine has fallen; not only is it unable to protect against smallpox, but it is also accompanied by illness and weakening, suffering and death, and it also increases the predisposition to the very same disease from which it was intended to protect the human race.<sup>76</sup>

This was Lybeck's view, and it was in line with another key argument against vaccination, namely that smallpox vaccination did not protect against smallpox, but rather increased the likelihood of contracting smallpox and dying from it.<sup>77</sup>

The main reason for doubting the efficacy of vaccination was the general observation that people who had been vaccinated could still get smallpox. Jenner had based his vaccination on the assumption that just as smallpox infection gave a person lifelong immunity to the disease, so vaccination would give similar lifelong protection. However, Europe-wide smallpox epidemics following the introduction of Jennerian vaccination showed that the artificial immunisation did not last a lifetime and that revaccinations were necessary.<sup>78</sup> Another reason why people contracted smallpox despite being vaccinated was that the immunisation had failed. Especially in the early days of vaccination, the vaccine was difficult to preserve and could lose its effectiveness.<sup>79</sup>

Jenner's innovation had been based on the insight that some pox diseases were so similar that they afforded cross-immunity. Since the pathogen of both smallpox and cowpox remained unidentified well into the twentieth

75 Maunu af Heurlin, "Milloin lapsi on rokotettava?", *Duodecim* 28 (1912), no. 5: 238–240.

76 Lybeck, "Rokotus-pakko" (1914): 7.

77 Aaku Mäki, "Isorokko Itä-Suomessa. Rokotus ja uudestaan rokotus todettu tehottomaksi", *Luonnonparantaja* 1 (1912), no. 1: 11–13; "160 lääkärin ja lääketieteen professorin lausuntoja rokotuksesta" (1913): 54–56; Rytty, "Rokotusvastaisuus historiallisena ilmiönä 1900-luvun alun Suomessa" (2020): 220.

78 Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 234–237; Worboys, *Spreading Germs* (2000): 118–120, 124.

79 Arno Forsius, "Lehmärokon historiaa", *Kuvauksia lääketieteen historiasta* (2001), <https://web.archive.org/web/20190219164116/http://www.saunalahti.fi/arnoldus/vaccinia.html> (accessed on 14.8.2024).

century, the relationship between cowpox and smallpox was still disputed in the late nineteenth century.<sup>80</sup> Judging by the Finnish medical journals, this unanswered question of cross-immunity aroused little interest among the profession and did not lessen its trust in the protective power of the smallpox vaccination.<sup>81</sup>

Older physicians especially, who had led the fight against smallpox epidemics in the late nineteenth century, knew from their own experience that smallpox vaccination did really work. They also knew how helpless medical practitioners and Western medicine as a whole would be in the face of smallpox without vaccination, and therefore emphasised its benefits over its adverse effects.<sup>82</sup> For example, ReijoWaara described in *Terveydenhoitolehti* how in one family the elderly mother had died of smallpox, the elderly father had been seriously ill, the 17-year-old son only slightly ill, and the adult daughter not ill at all. The mother had been unvaccinated, the father had been vaccinated as a child, the son 12 years previously, and the daughter revaccinated only two years before. According to ReijoWaara, this gave the clearest possible picture of the protective power of the smallpox vaccination.<sup>83</sup>

An even better way to prove that smallpox vaccination truly worked appeared to be statistical data on smallpox-related deaths compared to the data on the number of vaccinees. Because numbers gave an appearance of objectivity and scientific credibility, statistics became a tool of public policy throughout Europe and played an important role in justifying compulsory vaccination during the nineteenth century.<sup>84</sup> The earliest statistical data on smallpox-related deaths was available in Sweden (Finland was part of Sweden until 1809) from the latter part of the eighteenth century.<sup>85</sup> It seemed to prove

80 Worboys, *Spreading Germs* (2000): 118, 243–244.

81 ReijoWaara, “Onko meillä syytä jatkaa kaikkien lasten pakollinen rokottaminen tähänastiseen tapaan” (1908): 135–136; G.V.L. (pseudonym), “Rokotuksen hyöty”, *Terveydenhoitolehti* 23 (1911), no. 3: 39–40; Hällström, “Suojelusrokotuksesta” (1911): 113–114; Uno Winter, “Isosta rokosta ja rokotuksesta”, *Terveydenhoitolehti* 24 (1912), no. 2: 17–19; Konrad ReijoWaara, “Suojelusrokotuksesta. Vastaus ‘isälle’”, *Terveydenhoitolehti* 24 (1912), no. 5: 72–73; Heurlin, “Milloin lapsi on rokotettava” (1912): 234–236; Hannikainen, “Rokotuksen vastustusliikkeestä” (1914): 69, 73, 79.

82 Relander, “Rokottamisesta” (1885): 49–52; Winter, “Isosta rokosta ja rokotuksesta” (1912): 17–19; ReijoWaara, “Suojelusrokotuksesta. Vastaus ‘isälle’” (1912): 72–73; ReijoWaara, “Isosta rokosta ja rokotuksesta” (1912): 98–99; Hannikainen, “Rokotuksen vastustusliikkeestä” (1914): 69; Konrad ReijoWaara, “Rokotuksen hyötyä valaisevia pikakuvia”, *Terveydenhoitolehti* 29 (1917), no. 7–9: 111–112.

83 ReijoWaara, “Rokotuksen hyötyä valaisevia pikakuvia” (1917): 112.

84 Durbach, *Bodily Matters* (2005): 2; Sharma, *We Lived for the Body* (2014): 120.

85 In Sweden and Finland, nationwide collection of population data was started in 1749 as parish clergy had to start listing births, deaths, and marriages. The cause of death became a standard part of these records in the mid-eighteenth century, and smallpox was com-

that the introduction of the vaccination had decreased both morbidity from smallpox and the frequency of smallpox epidemics.<sup>86</sup>

However, anti-vaccinationists also used such statistics to support their own arguments. Finnish anti-vaccinationists relied on the vast European anti-vaccination literature that used statistics to prove vaccination did not afford protection against smallpox, but instead increased susceptibility and morbidity to the disease.<sup>87</sup> In early twentieth-century Finland, opponents and supporters of vaccination blamed each other for twisting the statistical data.<sup>88</sup> Recent research, however, suggests it was less a question of twisting the statistics than the unreliability of the statistics themselves due to, for example, the unsystematic information collection methods.<sup>89</sup>

In this light, it is unsurprising that a perusal of statistics sometimes converted vaccination supporters into opponents. This was the case with the German physician Heinrich Böing and the English professor of epidemiology Charles Creighton.<sup>90</sup> Something similar may have happened to Lybeck when he studied the writings of medical authors who were known for their vaccine criticism. He considered the arguments presented by the professor of hygiene and epidemiology Adolf Vogt especially convincing. Vogt had based his argument on Europewide statistics. Lybeck interpreted Vogt to mean that neither smallpox infection nor vaccination produced immunity, but only increased susceptibility to the disease, which prompted Lybeck to exclaim:

Having read this, it feels as though an earthquake will rock the whole construction of medicine so carefully put together. What is there to wait for, what is there to believe, when the cornerstone is thus crumbling into pieces!<sup>91</sup>

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paratively easy to diagnose and distinguish from other diseases even by non-physicians. Kari Pitkänen, James H. Mielke and Lynn B. Jorde, "Smallpox and its Eradication in Finland", *Population Studies* 43 (1989), no. 1: 95, 97.

86 Sharma, *We Lived for the Body* (2014): 121.

87 O.T. Axell, "Rokotuksen turmiollisuus", *Terveys* 2 (1912), no. 4: 25–28; Aaku Mäki, "Rokotuskokeista ja sen seurauksista Englannissa", *Luonnonparantaja* 1 (1912), no. 7–8: 104–106; Durbach, *Bodily Matters* (2005): 3, 47–50.

88 Hällström, "Suojelusrokotuksesta" (1911): 115; Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 67; "Mitä velvollisuudentuntoisten vanhempien on varteenotettava uuden rokotus-lain suhteen?", *Terveys* 6 (1916), no. 11–12: 169–170; Sampsa Luonnonmaa, "Rokotuspakko poistettava", *Parantaja* 3 (1918), no. 2: 28, 32–33.

89 Durbach, *Bodily Matters* (2005): 2–3; Sharma, *We Lived for the Body* (2014): 120–121.

90 Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 71–74, 78; Sharma, *We Lived for the Body* (2014): 122.

91 Lybeck, "Rokotus-pakko" (1914): 7.

## 6 The Issues of Necessity and Compulsion

In early twentieth-century Finland, as well as in the rest of Europe, smallpox epidemics had become rare and the horrors they had caused were beginning to fade away.<sup>92</sup> Older medical practitioners suspected that many a young physician had never even seen a patient with smallpox, which explained why some had become critical of compulsory vaccination. Now that the disease was no longer a public health threat, it was easy to imagine that the adverse effects of vaccination might exceed its benefits.<sup>93</sup> Lybeck probably belonged to this latter group of medical practitioners, as he had qualified as a Licentiate of Medicine in 1895,<sup>94</sup> when smallpox was no longer a demographically important disease in Finland.<sup>95</sup>

Thus, the opponents' third key argument against vaccination was that it was unnecessary. This was intertwined with the argument over the effectiveness of vaccination, i.e. whether or not vaccination had anything to do with the decline of smallpox in Europe.<sup>96</sup> Based on statistics, Lybeck claimed that vaccination had had nothing to do with the decline in smallpox mortality. His view was that smallpox had declined only in those regions where it had been fought with isolation and hygienic practices, not in regions that had resorted to vaccination.<sup>97</sup> Lybeck's view was in line with other Finnish anti-vaccinationists who believed that the ultimate cause of smallpox was dirt, and that it was therefore possible to conquer the disease with improved hygiene and the isolation of patients. In other words, smallpox vaccination was a totally unnecessary medical intervention.<sup>98</sup>

Most Finnish physicians, by contrast, seemed to consider smallpox vaccination as the key weapon in the fight against smallpox. Nevertheless, they were

92 After 1910 there had only been a few cases of smallpox a year in Finland, apart from 1918, the year of the civil war. Pitkänen, Mielke and Jorde, "Smallpox and its Eradication in Finland" (1989): 95, 97.

93 ReijoWaara, "Onko meillä syytä jatkaa kaikkien lasten pakollinen rokottaminen tähänastiseen tapaan" (1908): 135–137; Winter, "Isosta rokosta ja rokotuksesta" (1912): 18; ReijoWaara, "Isosta rokosta ja rokotuksesta", (1912): 99; Levander, "Piirteitä kulkutautien luonteesta" (1917): 119.

94 "Vuosikertomus Duodecim-seuran toimintakaudelta 18.11.1918–18.11.1919" (1920): 75.

95 Pitkänen, Mielke and Jorde, "Smallpox and its Eradication in Finland" (1989): 96–97.

96 Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 71–94; Luonnonmaa, "Rokotuspakko poistettava" (1918): 26–34; Sharma, *We Lived for the Body* (2014): 121–123.

97 Lybeck, "Rokotus-pakko" (1914): 7.

98 "Rokotusvirkeilijain ja rokotuksen vastustajain väitteitä", *Luonnonparantaja* 2 (1913), no. 1–2: 41–44; "Valaistusta rokotusasiaan", *Parantaja* 2 (1916), no. 1: 22–23; Luonnonmaa, "Rokotuspakko poistettava" (1918): 32–33.

willing to admit that other preventative measures such as efficient isolation and disinfection, combined with improved hygiene conditions, had also played a prominent role,<sup>99</sup> although the significance of the latter had only grown towards the end of the nineteenth century.<sup>100</sup> An interesting example of how the statistics blurred opinion is the overview of the Finnish anti-vaccination movement written by the district physician and, later, medical counsellor T. Hannikainen in *Duodecim* in 1914. Based on Europe-wide statistical data, Hannikainen set out to prove that the decrease in smallpox mortality during the nineteenth century was principally caused by vaccination. However, when he began to analyse the Finnish statistics, they no longer pointed so obviously to the role of vaccination. He concluded that the decrease in smallpox mortality in Finland during the nineteenth century was not principally due to vaccination but to efficient isolation and disinfection, combined with higher wealth, better education, and improved hygiene.<sup>101</sup>

The questions about the necessity, efficacy and safety of smallpox vaccination were entwined with the dispute over compulsion. Indeed, the anti-vaccination movements in Finland and elsewhere in Europe represented vaccination as dangerous, inefficient, and unnecessary in order to repeal the legislation that made smallpox vaccination mandatory – not necessarily to abolish vaccination per se.<sup>102</sup> In line with this goal, Lybeck demanded in *Terveys* in 1912 the abandonment of compulsory vaccination:

The law on vaccination was enacted on the assumption that vaccination is harmless and beneficial. If we are able to prove that it is neither, but on the contrary both inefficient and dangerous, it makes the law on compulsory vaccination unjust, and the sooner it will be repealed, the better.<sup>103</sup>

Fundamentally, the Finnish anti-vaccinationists, along with their European counterparts, opposed compulsory vaccination as a violation of individual rights to one's body. Durbach has connected the nineteenth-century anti-vaccinationism with a wider public debate over the extent of the government's rights to intervene in the private lives of its citizens.<sup>104</sup> Interestingly, the

99 Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 93.

100 Worboys, *Spreading Germs* (2000): 120.

101 Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 72–93.

102 Durbach, *Bodily Matters* (2005): 13–23, 37–40, 69–90; Rytty, "Rokotusvastaisuus historiallisena ilmiönä 1900-luvun alun Suomessa" (2020): 221–222.

103 Lybeck, "Muut parantajat ja lääkärit, jatkoa" (1912): 11.

104 Lybeck, "Muut parantajat ja lääkärit, jatkoa" (1912): 11; Luonnonmaa, "Rokotuspakko poistettava" (1918): 33–34; Durbach, *Bodily Matters* (2005): 5–6, 69–90; Rytty, "Rokotusvastaisuus historiallisena ilmiönä 1900-luvun alun Suomessa" (2020): 222, 224–225.

well-known German physician and vaccine critic Heinrich Böing opposed first and foremost the compulsion, not the smallpox vaccination as such. Based on revaccination experiments, Böing had concluded that vaccination gave protection against smallpox for only one or two years, which in his opinion was too short a time to justify government intervention in the private lives of its citizens in the form of compulsory vaccination.<sup>105</sup>

In general, estimates of the duration of artificial immunity against smallpox varied among European medical practitioners and scientists, ranging from one to ten or even fifteen years. Based mainly on their own experience, but also taking into account statistics, Finnish medical practitioners were mostly of the opinion that the immunity given by smallpox vaccination lasted from seven to ten years, which was long enough to justify compulsory vaccination.<sup>106</sup> The low incidence of smallpox in the early twentieth century, however, led some Finnish physicians to consider whether it might be possible to abandon compulsory vaccination completely, as anti-vaccinationists demanded.<sup>107</sup> ReijoWaara noted in *Terveydenhoitolehti* in 1908:

Although vaccination is a good means of protection and thus a good tool in the fight against the spread of the disease, it does not follow that we should continue the vaccination of all children for ever, even when there is no threat of disease. For it cannot be insisted that there are no health risks for small children in vaccination.<sup>108</sup>

In the end, these medical practitioners concluded that giving up compulsory smallpox vaccination remained impossible. First, Finland was next to Russia, where the incidence of smallpox was still quite high. It could spread to Finland from there. Second, the physicians doubted whether the Finnish system for preventing epidemic diseases would be sufficiently effective without smallpox vaccinations. There was still no Communicable Diseases Act in effect, without which it would be difficult to make ordinary people collaborate in the

105 Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 73–74, 78; Sharma, *We Lived for the Body* (2014): 122–123.

106 H.A. Hm (pseudonym), "Lasten vanhemmille Sortavalan lääkäripiirissä", *Terveydenhoitolehti* 4 (1892), no. 6: 87; Winter, "Isosta rokosta ja rokotuksesta" (1912): 18–19; Heurlin, "Milloin lapsi on rokotettava" (1912): 247–260; Hannikainen, "Rokotuksen vastustusliikkeestä" (1914): 79.

107 ReijoWaara, "Onko meillä syytä jatkaa kaikkien lasten pakollinen rokottaminen tähänastiseen tapaan" (1908): 137–138; Winter, "Isosta rokosta ja rokotuksesta" (1912): 19; Levander, "Piirteitä kulkutautien luonteesta" (1917): 119.

108 ReijoWaara, "Onko meillä syytä jatkaa kaikkien lasten pakollinen rokottaminen tähänastiseen tapaan" (1908): 136.

event of a smallpox epidemic. They were known to be reluctant to be vaccinated or revaccinated and did not understand the importance of isolation and hygiene.<sup>109</sup> Ultimately, smallpox vaccination remained compulsory in Finland until 1952.<sup>110</sup>

## 7 Vaccine Criticism and the Bounds of Orthodox Medicine

In 1914, Doctor T. Hannikainen discussed both the Finnish and international anti-vaccination movement in *Duodecim*. He maintained that the core of anti-vaccinationists was made up of supporters of natural healing and other “enemies of orthodox medicine”. He underlined that, among the opponents of vaccination, there were also physicians, although their scientific knowledge was no better than that of a natural healer. He suspected that it was financial greed and hopes for a large clientele that motivated these medical practitioners to join the popular natural healing movement – which was probably an indirect allusion to Lybeck.<sup>111</sup>

However, Hannikainen admitted that the opponents of vaccination did include a number of physicians who deserved the title of scientist. He named professor of pathology and bacteriology Edgar Crookshank, professor of epidemiology Charles Creighton, professor of hygiene and epidemiology Adolf Vogt, and Dr. Heinrich Böing. What separated these men from the “natural healers”, according to Hannikainen, was that they had not turned against regular medicine but had worked diligently to shed light on the unanswered questions concerning vaccination. For example, Böing had not criticised the medical establishment nor questioned the protection that smallpox vaccination afforded against the disease. He had mainly criticised compulsory vaccination, rather than the vaccination itself.<sup>112</sup>

Hannikainen did not explicitly discuss Lybeck, but he clearly did not consider the latter as a reasonable medical opponent of vaccination. Lybeck approached the vaccine question from the vantage point of the “enemies of orthodox medicine” – the natural healing movement. It seems he initially

109 ReijoWaara, “Onko meillä syytä jatkaa kaikkien lasten pakollinen rokottaminen tähänastiseen tapaan” (1908): 137–138; Uno Winter, “Vielä kerran kuhnekylyivistä”, *Terveystieteiden lehti* 23 (1911), no. 3: 45; Winter, “Isosta rokosta ja rokotuksesta” (1912): 19; Levander, “Piirteitä kulkutautien luonteesta” (1917): 119.

110 Laurent, *Asiantuntijuus, väestöpolitiikka, sota* (2017): 271.

111 Hannikainen, “Rokotuksen vastustusliikkeestä” (1914): 67.

112 Hannikainen, “Rokotuksen vastustusliikkeestä” (1914): 71–74.

developed an interest in natural healing as a cure that supplemented the inadequate arsenal of medical therapies. Although he did not entirely abandon medicine or its teachings, he was attracted by natural healing's ability to combine health with morality, which also influenced his vaccine criticism. Lybeck believed that the only way to health was to follow a morally correct lifestyle, and medicine undermined this goal by offering medicines and vaccines that were used to correct or prevent the traces of an immoral life. This especially concerned venereal diseases: Lybeck had been horrified to learn of efforts to develop a vaccine against syphilis. He exclaimed in *Uusi Suometar* in 1914:

Must even one who struggles to lead a pure life let himself and his children be vaccinated with the poison of syphilis so that mankind can continue to sin without punishment?<sup>113</sup>

In many respects, Lybeck was undertaking a challenging balancing act between orthodox medicine and unorthodox healing. His vaccine criticism was based on the natural healing ideology, but he tended to justify it by referring not just to the scientific knowledge on the smallpox vaccination, but also to the lack of it. His aim was not to solve these unanswered medical questions related to vaccination, but rather to use the elements of uncertainty to criticise the basic principle of it. Indeed, his criticism was directed at the entire medical establishment, which was based on a scientific worldview and which he saw as confined to the laboratory, forgetting the connection between health and morality. His criticism also extended to his colleagues, whom he accused of uncritically accepting vaccination despite the problems associated with it, which made them "morally criminal and guilty of ruining their own people".<sup>114</sup> In the end, the vaccination debate was also a clash of worldviews.

A telling example of the defence of medical orthodoxy was the 23rd general meeting of the Medical Society of Finland in 1911. At the meeting, Lybeck was questioned by his colleagues about his relationship with the followers of Kuhne and the anti-vaccination movement. Regardless of the content – scientific or otherwise – of Lybeck's vaccine criticism, his colleagues defined him as a preacher of Kuhne's doctrines simply because he associated with Kuhne's followers at the Kirvu natural healing sanatorium. The meeting accepted a resolution according to which the Medical Society of Finland disapproved of licensed physicians using their medical authority to support anti-vaccinationism and

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113 Lybeck, "Rokotus-pakko" (1914): 7.

114 Lybeck, "Muut parantajat ja lääkärit, jatkoa" (1912): 11.

the quacks who followed Kuhne's doctrines. Officially, Lybeck remained a member of the Medical Society of Finland, but significantly, he addressed its other members as "former colleagues",<sup>115</sup>

This chapter has shown, how doubts or criticism towards vaccination were allowed in the confines of the medical profession only as far as they did not turn against the basic principle of vaccination, the scientific conception of disease, or the medical establishment per se. My analysis of the discussions conducted in the two medical journals suggests that the scientific uncertainties related to smallpox vaccination roused very little discussion among the Finnish medical profession. If anything, medical practitioners tended to downplay the role of these elements of uncertainty in order to calm the public and reassure it of the benefits of smallpox vaccination. Although scientific evidence, for example from laboratory research, was beginning to play an increasingly central role in defining medical boundaries, it was ultimately grassroots knowledge from medical practice that filled the gaps left by medical uncertainty. The Finnish physicians' own practical experience was enough to convince them that smallpox vaccination really worked and that it was the best available means of controlling smallpox. Most importantly, based on this experience, they estimated that the benefits of smallpox vaccination to the nation were greater than its associated problems and risks.

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115 "Suomen lääkäriseuran 23:s yleinen kokous" (1911), no. 220: 4–5.

# Dealing with the Ambiguity of End-of-Life Decision-Making: Living Wills and Patients' Rights in Belgian End-of-Life Advocacy in the 1980s and 1990s

*Niels De Nutte*

## 1 Introduction

In keeping with the goals of this volume, this chapter provides a historical case study on dealing with medical uncertainty. It shows how advance care directives (ACD's), *in casu* living wills, can be used in medical situations related to the issue of patients' rights and end-of-life decisions. ACD's are documents in which an individual can make clear their desires about future medical situations and actions. My contribution is made through the lens of Belgian end-of-life advocacy during the 1980s and 1990s. This period is marked by an emerging political interest in the subject of voluntary euthanasia and preceded the partial depenalisation of 2002.<sup>1</sup> Euthanasia, first with the connotation of mercy killing and understood increasingly as a matter of personal choice from the 1960s onwards, was shown by historians such as Ian Dowbiggin and Nick Kemp to have been a societal issue in the United States and Great Britain for a century. In contrast, Belgium and the Netherlands have slowly followed the same pathway since the 1930s.<sup>2</sup> Euthanasia, in the modern understanding of

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- 1 Niels De Nutte, "België ethisch gidsland. De aanloop naar de euthanasiewetgeving", *Liberas Stories*, [https://www.liberasstories.eu/nl/atlas/samenleving\\_en\\_innovatie/belgie\\_ethisch\\_gidsland\\_de\\_aanloop\\_naar\\_de\\_euthanasiewetgeving/1819](https://www.liberasstories.eu/nl/atlas/samenleving_en_innovatie/belgie_ethisch_gidsland_de_aanloop_naar_de_euthanasiewetgeving/1819) (accessed on 20.9.2022); "Wet tot wijziging van de wet van 28 mei 2002 betreffende de euthanasie, teneinde euthanasie voor minderjarigen mogelijk te maken", *Belgisch staatsblad* (12.3.2014), <https://pha.be/wp-content/uploads/2020/02/45-wet-euthanasie-voor-minderjarigen-1.pdf> (accessed on 24.4.2023). For an in-depth analysis of the parliamentary debates leading up to the law, see Marie-Luce Delfosse, "Vers la loi du 28 mai 2002 relative à l'euthanasie (I). Une approche des débats parlementaires", *Courrier hebdomadaire du CRISP* 22 (2019), no. 2427–2428: 7–104.
  - 2 See Ian Dowbiggin, *A Merciful End. The Euthanasia Movement in Modern America* (Oxford: University Press 2003); Nick D.A. Kemp, *Merciful Release: The History of the British Euthanasia Movement* (Manchester: University Press 2002); Heleen Weyers, *Euthanasie. Het proces van de rechtsverandering* (Amsterdam: University Press 2004).

the active and life-shortening ending of a patient's life by a medical professional at the request of the patient, was legalised and coupled with laws on palliative care and patients' rights. This trio of laws gave legal weight to several forms of ACD's and makes the Belgian situation relatively unique at a global level up until today. This (liberal) law-making evidently did not happen in a vacuum. I thus start by demonstrating how Belgian society looked at euthanasia during the twentieth century. Next, I explain how this issue is related to medical uncertainty, why living wills were created, and what positions were taken by physicians and advocacy groups. Finally, I illustrate how and why the legal proposals of the 1980s tried to legalise living wills.

In the current historiography, it is generally assumed that the medical sphere had little interest in the subject. This is spurred on by the abundant attention and source production by legal professionals, philosophers and thanatologists. My chapter implies that physicians, though absent in the literature, may have been more involved than previously assumed. The chapter also shows that the living wills provided by euthanasia advocacy groups were not just requests for euthanasia, but instead contained a variety of options to deal with the difficult situation of advance care planning. As a final point, this contribution evaluates the usefulness of the conflict model of secularisation, introduced by Monika Wohlrab-Sahr in her attempts to try to make sense of the history of end-of-life decision-making.<sup>3</sup> Things were certainly not clear-cut, as on the one hand parties such as the seculars acted as champions for the right to euthanasia, whilst on the other Catholics appeared as naysayers to the movement.

By the second half of the twentieth century, a primarily secular part of Belgian society had pulled away from the Catholic doctrine in which suffering at the end of one's life served as a religious purpose, opting instead to put increasing emphasis on the quality of one's life.<sup>4</sup> The logical consequence of this changing morality resulted in a focus on issues related to the end of life. More to the point, the development of medical technology in the post-war decades created the possibility of extending life beyond what was considered common in previous times. To some, this begged the question of what could and should be considered a 'dignified life.' The dying process of the Spanish dictator Franco (1975) and the American Karen Ann Quinlan (1985) – whose

3 Monika Wohlrab-Sahr, Thomas Smidt-Lux and Uta Karstein, "Secularization as Conflict", *Social Compass* 55 (2008), no. 2: 127–139.

4 Niels De Nutte, "In the Face of Death. Societal Attitudes and Popular Opinion on Medical Aid and Dying in Belgium", in: Christoph De Spiegeleer, Niels De Nutte and Jeffrey Tyssens (eds.), *Secularity and Belgium's Death System, 1850–1950* – special issue of *Secular Studies* 4 (2022), no. 1: 71–92.

parents demanded resuscitation be discontinued given the improbability of her regaining consciousness – served to focus the debate.<sup>5</sup>

The controversy over what is considered a ‘human’ life was, in Belgium until the 1970s, limited mostly to discussions over abortion. By the end of the decade, societal debates grew to include considerations also of end-of-life scenarios, launching debates on when and if a human life could cease to be ‘humane’. This line of thought to some extent attempted to determine the difference between being alive and living as a human being. The question was raised of whether the (extreme) prolonging of life could be seen as an artificial and protracted dying process. This, in essence, is where the desire to cure could perhaps come into conflict with the best interest of the patient. Therapeutic tenacity, understood as the excessive pursuit of curative efforts, was considered a major pitfall in this case. This concern even reached the European political level as early as the mid-1970s, when the European Parliamentary Assembly adopted a resolution condemning the use of modern techniques for the prolonging of life.<sup>6</sup>

While proponents and individuals condemning the idea of euthanasia existed across the board of the religious and non-religious landscape, post-war debates in different media outlets from the 1970s onwards in Belgium found that seculars advocated the right to active euthanasia. This advocacy stemmed from what could be considered as a positivist and individualist view on life that was at the core of their ideas at the time. However, the Belgian Catholic Church – and this rings equally true for the political Christian-Democratic majority in power well into the 1990s – condemned active euthanasia. To some extent, the latter condoned some form of passive euthanasia – as part of the intellectual current known as continental personalism.<sup>7</sup> This school of thought saw individualism as its greatest opponent. For personalists, the ‘I’ existed primarily

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5 K. Pauwels, , “Omschrijving van de euthanasie problematiek”, *Tijdschrift voor Sociale Wetenschappen* (1977), no. 2: 119–127. The *Centrum voor Bevolkings- en Gezinsstudie* (Centre for the Study of Population and Family) was created by the Ministry for Public Health and Family. It was recognised as a national scientific institution in 1975. It was dissolved as of 1 January 2006.

6 Brussels, European Parliamentary Assembly, “Resolution 613: Right of the Sick and Dying” (1976), <https://assembly.coe.int/nw/xml/XRef/Xref-XML2HTML-en.asp?fileid=16026&lang=en%020> (accessed on 9.4.2024).

7 The fact that personalism at that time is to be considered as the guiding principle for the Christian Democratic Party is attested to by historian Wannes Dupont, “In Good Faith: Belgian Catholics’ Attempts to Overturn the Ban on Contraception”, in: Cécile Vanderpelen-Diagre and Caroline Sägesser (eds.), *La Sainte Famille: sexualité, filiation et parentalité dans l’Eglise catholique* (Brussels: Editions de l’Université de Bruxelles 2017): 67.

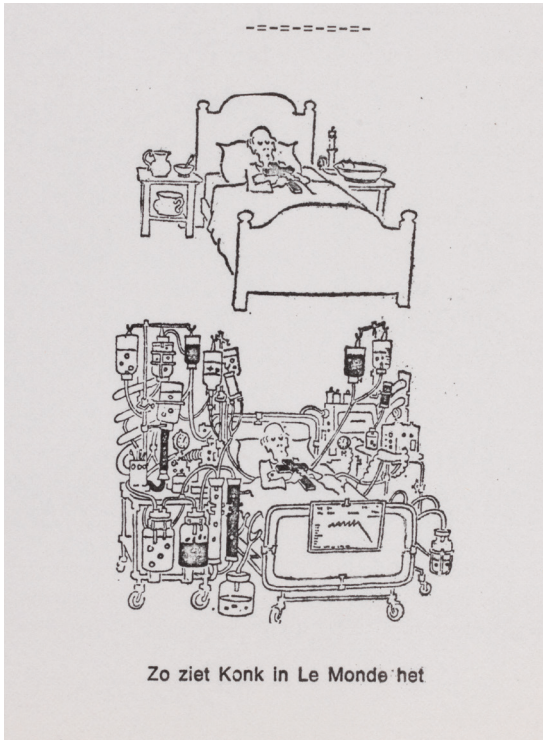


FIGURE 9.1

Therapeutic tenacity. This image was part of an information folder made by *Humanistisch Verbond* and makes it very clear what religious connotation the secular humanist organisation attributed to the concept of therapeutic tenacity.

SOURCE: UTRECHT, ARCHIVES OF THE INTERNATIONAL HUMANIST AND ETHICAL UNION, 468: *IHEU MEMBERSHIP AND AFFILIATION, BELGIUM 1973–1996. THERAPEUTIC TENACITY* (ANTWERP 1972)

based in its love for ‘the other(s)’, *être c’est aimer*.<sup>8</sup> Although the traditional Belgian philosophical-religious cleavage was noticeably present in end-of-life issues, it is, however, necessary to understand that in these debates, whether or not one adhered to the Christian faith was not the issue, but rather the weight one allotted to religion in one’s decision-making (see Figure 9.1).

As I have shown in earlier work, the pre-war debates on euthanasia as mercy killing, a connotation largely absent in the post-war period, already corresponded neatly with the philosophical-religious cleavage present in society.<sup>9</sup> The terminology on the Catholic side was explicitly hostile, equating proponents of euthanasia with murderers, pagans and those outside the church. The (secular) proponents, on the other hand, based their arguments on compassion and rationality. By the 1970s, secular humanist organisations would focus on the right to self-determination in their advocacy work on

8 Barbara Zwaan, “Alles en niets. Over de paradox van het mens-zijn bij Simone Weil”, *Filosofie* 26 (2016), no. 1: 32.

9 De Nutte, “In the Face of Death” (2022): 88–89.

abortion, contraception and other issues.<sup>10</sup> As a consequence, they came to take an individualistic approach to advocating the right to euthanasia by the end of the decade, opposing the Catholic ‘relational’ approach of personalism.

From the 1980s onwards, the goal of the Belgian right-to-die movement, which had established databanks for the living wills of their members and external applicants, was to support the individual’s desire for their end to be hastened. As active voluntary euthanasia was punishable by law, submitters hoped that depositing the living will annually, would convince medical professionals of the durable nature of their request, inasmuch as the document itself could potentially provide statutory immunity to physicians who complied in good faith. Whether or not these claims were recognised as true is shown throughout this chapter. It is clear, however, that living wills – in any shape or form – were a part of the process of discussion of end-of-life care. As the document clarified the related values and goals of the patient, and as such embodied their preferences, it could allow for a dialogue with a healthcare agent or clinical team.

In the introduction to the 1985 study performed under the auspices of the Hemlock Society, a California-based euthanasia advocacy organisation, Gerald A. Larue made two points relevant to this chapter. Firstly, he relativised the importance of general religious dogma in issues surrounding death and dying. He rightly pointed out that when one is facing death, be it one’s own or that of a loved one, “it is then that one struggles with feelings of loss, separation, guilt, frustration, and anger. And, when that death is accompanied by intractable pain or ongoing coma, issues of ethical response to the situation, legal and theological prescriptions, and feelings of love and care compete.” In such circumstances, dogma may very well be ignored. Put more aptly, “What is said ... should be tempered with the reality of human behaviour.” Secondly, he viewed his research as serving as a beginning in aiding fellow health practitioners, health professionals and clergy with their discomfort in situations related to euthanasia. Larue wrote: “Medical personnel are always helped when clear statements of support and guidance come from ethicists, theologians and clergy.” The expressed wishes of a patient would be included in a living will and filed with an attorney, medical personnel, family, or clergy.<sup>11</sup> The philo-

10 Self-determination in a Belgian context is an argument that came to the forefront of the secular humanist position while advocating abortion rights in the 1960s. See Els Witte, “Twintig jaar politieke strijd rond de abortuswetgeving in België (1970–1990)”, *Res Publica* 32 (1990), no. 4: 436–437.

11 Gerald A. Larue, *Euthanasia and Religion. A Survey of the Attitudes of World Religions to the Right-to-Die* (Los Angeles: The Hemlock Society 1985): 1–5.

sophical disposition or life stance of a patient and a medical professional was (and is) not without importance where the end of life is concerned. It becomes evident, however, that communication, potentially in the form of a living will or another ACD, can hold the key that enables both parties to act in each other's best interests.

## 2 Uncertainty

The tension that exists in this area makes uncertainty for both the attending physician and the patient almost inevitable. In what follows, I evaluate some arguments that are part of the current discussion on the role of uncertainty in the care relationship. This serves to focus on some of the points I make throughout this chapter.

The physician and bio-ethicist, Eric J. Cassell, concludes that although feeling uncertain as a physician is unavoidable, it is best managed by a well-informed doctor who knows as much as possible about his/her patients and their illness(es).<sup>12</sup> Being well-informed means countering conceptual uncertainty by having the ability to apply abstract knowledge to concrete situations, limiting technical and procedural uncertainties by collecting relevant scientific data and building an adequate level of skill. This supposedly prevents personal uncertainty by building a rapport with a patient and keeping oneself informed of their wishes.<sup>13</sup> Prognostic uncertainty is thus related to the self-confidence of the physician and whether the information is available (i.e. professional and interpersonal knowledge) to accurately make a decision.

It is here that advance care directives, such as living wills and other previously expressed views and desiderata, may help to provide insight into the (non-competent) patient's wishes. As pointed out by intensivist Saxon Ridleya and nurse Malcolm Fisher, "An advance care plan relevant to the current situation, which has been discussed with a nominated surrogate in a structured session, is the most reliable record of the patient's views."<sup>14</sup> A nominated surrogate is preferable to the judgement of family members, since a mismatch might very well exist between the unknown, unexpressed feelings of the patient and

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12 Eric J. Cassell, "The Sorcerer's Broom: Medicine's Rampant Technology", *Hastings Center Report* 23 (1993), no. 6: 32–39.

13 Eric B. Beresford, "Uncertainty and the Shaping of Medical Decisions", *Hastings Center Report* 21 (1991), no. 4: 6–11.

14 Saxon Ridleya and Malcolm Fisher, "Uncertainty in End-of-Life Care", *Current Opinion in Critical Care* 19 (2013), no. 6: 642–647.

a request to prolong life by a family member. Even in the case of a nominated proxy, a mismatch cannot be ruled out since they could equally have other agendas influencing their perspective.

It remains important, however, to keep an open line of communication with both the patient and their family, as they will be anxious about an uncertain future, possible complications, and incomplete recovery. Managing such uncertainty properly is an essential skill for those delivering critical care. This is something that the Belgian living wills of the 1980s and 1990s did not cover, since the goal was to enforce the will of the individual.

Ridleya and Fisher conclude that the two major determinants of open communication are the intensive care environment and the ability and willingness of the staff to communicate. Special medical supervision, the alleviation of pain and medicamentous support cannot replace sympathy and empathy.<sup>15</sup> Excessive doses might even render communication between medical professional and patient impossible.<sup>16</sup> When looking at the specific case of end-of-life practices in Belgium, the 2011 study by the MELC Consortium seemed to support the claim that physicians, out of feelings of insecurity, avoid or postpone conversations on the matter until such time as they become an absolute necessity. As a consequence, palliative treatment – which is often the subject of early care planning initiatives – was only initiated in the final stages of illness and close to the time of death.<sup>17</sup>

### 3 Living Wills, an American Export Product

The idea of a living will originated in the United States of America, where it surfaced within the euthanasia movement as early as 1949. It re-emerged only some 20 years later, supported by the work of Chicago human rights lawyer and co-founder of Amnesty International, Luis Kutner. The living will was, as historian Ian Dowbiggin puts it, one of the crucial developments in the history of the euthanasia movement in the 1960s. A living will was essentially a document that stated in advance the will of a patient to either discontinue or to not start a treatment that extended life, at the time when a patient was dying and no longer able to express their wishes.<sup>18</sup> In the Belgian case, the idea

15 Ridleya and Fisher, "Uncertainty in End-of-Life Care" (2013): 642–647.

16 Etienne Glorieux, "De zorg om de stervende", *Geestesgezondheid* 4 (1972): 65–76.

17 MELC Consortium, *Palliatieve zorg en euthanasie in België. Evaluatie van de praktijk en wetten* (Brussel: ASP 2011): 153.

18 Dowbiggin, *A Merciful End* (2003): 120.

was expanded, with a number of other clauses added. By 1987, over three million copies of a living will had been distributed by the Euthanasia Society of America (ESA). In the 1940s, the idea was deemed tangential to the American euthanasia movement as it concerned only passive euthanasia. What the will meant, however, was made clear by an official of the ESA in 1971 when she said:

The keystone of a passive euthanasia which insists on your right to die with dignity with no heroic measures to keep you alive and prolong the days and hours of your dying ... In the early days of the Euthanasia Society, we tried for legislation and got thousands of names on petitions to the legislature, but we found it needed more than that. It needed a strong public opinion and, judging from the upsurge of interest in the subject in the past year, we think we are making some headway.<sup>19</sup>

In the article in which Kutner launched the idea of a living will, “Due Process of Euthanasia: The Living Will, a Proposal”,<sup>20</sup> he studied how an individual patient could retain the right of privacy over their body, i.e. the right to determine whether he or she should be permitted to die. As Kutner stated in one example, the patient may not have the opportunity to give their consent before the start of treatment. They might very well have suffered an accident which has rendered them incapable of expressing themselves. The document would be notarised and attested to by at least two witnesses, confirming that the individual was well-informed and of sound mind. Furthermore, the individual could, at any time, revoke the contents of the document. It should be kept on one’s person and should indicate who should be contacted in the event of an emergency. The physician would consult them in the decision-making process.<sup>21</sup> The ideas posited by Kutner would find their way to Europe by the early 1980s, as the concept would be translated into French and Dutch as ‘*testament de vie*’ and ‘*levenstestament*’, respectively, and lead to living will databanks operating in Belgium by the middle of the decade.

When evaluating the feasibility of law-making initiatives on euthanasia in Belgium in the early 1990s, attorney and general practitioner Etienne De Groot noted that medicine could not always determine whether therapy would be completely pointless in a given case. Since living wills at that time generally included a clause demanding the patients’ life be terminated in the event of a

19 Dowbiggin, *A Merciful End* (2003): 120–121.

20 Luis Kutner, “Due Process of Euthanasia: The Living Will, A Proposal”, *Indiana Law Journal* 44 (1969), no. 4: 536.

21 Kutner, “Due Process of Euthanasia” (1969): 550–552.

medically hopeless situation, honouring this request would prove difficult. De Groot went on to say that, even though the living will, in itself, held no legal weight and was considered contrary to public opinion, and as such should be treated as non-existent, the document did still have value. The attending physician, as a result of witnessing the living will, knew full well that pain management could be done with greater risks to ease any form of suffering. Death resulting from this practice would, in the terminology of the time, constitute the execution of passive euthanasia, as explained in this chapter's coverage of euthanasia advocacy and the vocabulary of that period.<sup>22</sup>

#### 4 Position and Advocacy of Physicians

Although medical professionals seem not to have been at the forefront of this advocacy in the early years, their impact should not be overlooked. As oncologist Jan Bernheim and his colleagues have shown, one of the reasons why euthanasic vocabulary evolved to see euthanasia as only one of six medical decisions at the end of life was exactly due to the involvement of medical professionals in this advocacy.<sup>23</sup> Palliative care and euthanasia advocacy in Belgium presumably developed side by side with common supporters. As Bernheim a.o. state:

Two of the founders of Belgium's first palliative care organisation, Continuing Care Community, were advocates of the legalisation of euthanasia. The organisation resulted from the joint efforts of British expatriates and staff at the Université Libre de Bruxelles and Vrije Universiteit Brussel, whose faculties had been instrumental in changes such as the promotion of contraception, the legalisation of abortion, and innovations in assisted reproduction. Several early palliative care workers were also active in the two Belgian right-to-die societies. The model they proposed was encapsulated by the term 'integral palliative care', in which

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22 Etienne De Groot, *Leven tot in de dood. Omtrent euthanasie* (Brussel: VUBPress 1997): 34. Etienne De Groot (1948-) was a politician of various offices for the Liberal Party, professor of medicine and president of the constitutional court. He was tasked within the liberal fraction to tackle the euthanasia issue. This was in large part due to the fact that he had both a medical and legal background. Interview of the author with Etienne De Groot (Boom 5.4.2021).

23 Jan Bernheim, Reginald De Schepper a.o., "Development of Palliative Care and Legalisation of Euthanasia: Antagonism or Synergy?", *British Medical Journal* 336 (2008), no. 7649: 864–867.

euthanasia is considered as another option at the end of a palliative care pathway and the patient's preferences come first.<sup>24</sup>

The public discourse and positioning of medical professionals in the decades under review can be considered hesitant and reluctant. The *Orde der Geneesheren* (Order of Physicians) radically rejected active euthanasia. Articles 95 and 96 of their code in 1984 stipulated that “to willingly cause the death of a patient, for whatever reason, is considered a crime.”<sup>25</sup> It stands to reason, of course, that the public attitude of the medical corps teaches us little or nothing about actual practice as, in the public eye, medical professionals and institutions will generally conform to the deontological codes and laws that are in force. This perception changes substantially when we take into account a survey by physician and euthanasia advocate Professor Robert Clara from 1974. This showed that almost half of physicians proved willing to perform passive or indirect forms of euthanasia. Other surveys, undertaken by medical journals *Tribune Médicale* and *Le Généraliste* in 1975 and 1983, respectively, showed a marked increase even in willingness to perform active euthanasia. The practice was supported by 13% and later 25% of respondents in cases where a patient suffered from unbearable pain.<sup>26</sup> Some physicians, such as Clara, were, of course, outspoken advocates of active euthanasia as well. A final factor that points to considerable support for the right to (at least passive) euthanasia, is to be found in the living wills dealt with here. The Belgian advocacy organisations recommended that a copy of these documents be kept by the patient's general practitioner and used to open up communication. Contrary to expectations, the *Association pour le Droit de Mourir dans la Dignité* (Right to Die with Dignity – ADMD) reported that in 55% of cases, a physician owned a copy of the living will and was found prepared to act as a point of contact.<sup>27</sup> Unfortunately, my insights about physicians as a target group currently end here. There is a distinct lack of archival sources to examine the specific actions and practices of physicians regarding living wills and euthanasia.

24 Bernheim a.o., “Development of Palliative Care and Legalisation of Euthanasia” (2008): 865.

25 Hugo Van den Enden, “Euthanasie in België van juridisch en deontologisch oogpunt”, in: G.H. Kenter (ed.), *Het levenseinde verlaten. Over euthanasie* (Haarlem: De Toorts 1984): 110–111.

26 “L'évolution des médecins face à l'euthanasie”, *Libération* (21.1.1983).

27 Jacqueline Herremans, “Gerichte praktijkervaringen met voorafgaande wilsverklaringen – België”, in: Alfons Van Orshoven and Yvon Englert (eds.), *Levenstestament en andere voorafgaande wilsverklaringen* (Antwerpen: Garant 2003): 140.

## 5 End-of-Life Vocabulary

Words have power. This, of course, is no less true when looking into end-of-life debates and advocacy. When emotional and ethical considerations find themselves intertwined, it becomes important to know just what one is talking about. This rings especially true when looking at the use of living wills. Indeed, some actions might be legal, while others can be expressed but not enforced or legally granted, as we shall see. I mentioned the contrasting pair of active and passive euthanasia earlier. It is important to understand just what these terms mean. I provide a short overview and a comparison with their contemporary counterparts used in the medical world. In Belgium, the vocabulary changed during the 1990s as euthanasia came to be seen as part of the broader spectrum of end-of-life treatments.<sup>28</sup>

To begin with, active euthanasia, in the second half of the twentieth century, was seen as a deliberate intervention with the end of the patient's life as a result. A second form, which is closely related in definition, is what was called indirect euthanasia or treatment with a double effect. This was 'the treatment of terminally ill patients with painkillers, which have a life-shortening side effect'.<sup>29</sup> It seems very plausible that the latter form corresponds to the contemporary notion of palliative sedation.<sup>30</sup> However, there is no such thing as a strict correspondence between active euthanasia and our current definition of euthanasia. After all, the definitions that are in use today refer to actions that shorten life, while active euthanasia only involved death, without a specific indication of time.<sup>31</sup> The equivalent of the current discontinuation

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28 Based on the existing literature, I initially estimated that word usage changed at the beginning of the 1980s. Professor Distelmans, oncologist and lifelong euthanasia advocate, pointed out that this only happened in the 1990s, which seemed to be the case with a re-reading of literature such as: Etienne De Groot, "Euthanasie, een waardig levenseinde?", in: Luc Desmedt and Christian Van Kerckhove (eds.), *Waardig sterven: een humanistische visie op euthanasie* (Antwerp: Humanistisch Vrijzinnige Dienst vzw 1996): 45; Klazien Sybrandy, "Vrijwillige euthanasie in Nederland: een overzicht", in: Tony Vanlandschoot (ed.), *Morele begeleiding en problemen van jongeren, werkloosheid, euthanasie, sterven ...* (Brussels: Unie Vrijzinnige Verenigingen 1986): 120–121.

29 Hilde De Paepe, "Situatieschets van de euthanasieproblematiek in België", in: Vanlandschoot (ed.), *Morele begeleiding en problemen van jongeren* (1986): 130–135.

30 For some definitions given in different national contexts, see Alexander Kremling and Jan Schildmann, "What Do You Mean by 'Palliative Sedation'? Pre-explicative Analyses as Preliminary Steps Towards Better Definitions", *British Medical Journal Palliative Care* 19 (2020), no. 147.

31 Johan Bilsen and Kenneth Cambaere, "Incidentie en kenmerken van euthanasie en hulp bij zelfdoding", in: MELC Consortium, *Palliatieve zorg en euthanasie in België* (2011): 201.

of treatment (which has become meaningless) was called passive euthanasia. The last two forms that need to be made explicit were called euthanasic suicide and its assistance. These simply correspond to current suicide and assisted suicide. The only difference is that in the former sense, the person in question was in a “euthanasic situation”. Passive versions, in other words passive or indirect euthanasia, were (and are to some extent) seen as the more ethical choice. Supporters argue that one does not actively contribute to hastening the death of the other party.

Abandoning treatment that is deemed meaningless was, for instance, considered acceptable by the Catholic church and not seen as euthanasia. Ceasing treatment was seen as morally acceptable, whereas medical aid in dying constituted a negation of the right to dispose of one's life.<sup>32</sup> This distinction is important to note when looking at living wills. The different versions used in Belgian society from the mid-1980s onwards show that passive and indirect euthanasia were legally enforceable, whereas active euthanasia was not.

## 6 End-of-Life Advocacy

By the late 1990s, it is quite evident that acceptance of some forms of euthanasia had permeated wider society. This is evidenced not only by a sociological survey that puts acceptance of euthanasia in certain cases at more than 80%, but also by the existing positions of ethicists in the newly established Belgian Advisory Committee on Bioethics.<sup>33</sup> Etienne Vermeersch, ethics professor at the University of Ghent at that time and staunch euthanasia advocate, noted that some prominent Catholics from both the French- and Dutch-speaking communities found even active euthanasia to be an ethically sound medical act.<sup>34</sup>

Although legal proposals regarding euthanasia and its associated issues had existed in Belgium since the mid-1980s, it cannot be considered a topic on the political agenda until the mid- and late 1990s. Earlier proposals were, rather, initiatives by a small number of elected officials and were never discussed in

32 Th. J.C. Beemer, “Recente kerkelijke uitspraken over stervenshulp en euthanasie in de Rooms-Katholieke Kerk”, in: Jos Immerzeel, Paul Heijnen a.o., *Menswaardig Sterven* (Bilthoven: Ambo 1974): 224–226.

33 *Les soins de santé dans la société belge* (Brussels: Institut interuniversitaire de sondage d'opinion publique 1988): 56.

34 Etienne Vermeersch, “Verleden en toekomst van de Belgische euthanasiewet”, in: Franky Bussche and Wim Distelmans (eds.), *Een goede dood. 2002–2012: tien jaar ‘controversiële’ euthanasiewet?* (Brussels: VUBPress 2012): 233.

plenum. More importantly, legislative work was made nearly impossible following the introduction of the abortion law in 1990, as the then Catholic Prime Minister, Jean-Luc Dehaene, henceforth banned the treatment of any legal proposals related to ethical issues.

The lack of a political will to move on the issue was evident early on, as the first proposal in 1984, ‘concerning the persistent continuation of a hopeless therapy’, may well have only been introduced by a senator. The text itself, however, was fully drafted and supplied by members of the euthanasia advocacy group ADMD.<sup>35</sup> In the 1980s, political parties did not have any expertise or research data related to end-of-life decisions. The parties were also still very cautious in their political stances. Only Agalev, the Flemish Green party, expressed their support for euthanasia, while the socialist and liberal parties only dared to speak out about abortion at the end of the decade.<sup>36</sup>

With quite timid societal debates underway after the late 1970s, the initiative was taken up by three advocacy groups, all of whom maintained living will databanks by the mid-1980s. These organisations were the aforementioned ADMD, the Dutch-speaking *Recht op Waardig Sterven* (Right to Die with Dignity – rws), established in 1981 and 1983, respectively, and the *Humanistisch Verbond* (Humanist Association – HV).<sup>37</sup> The latter had been around since 1951 and supported a wide array of social issues.<sup>38</sup> The three organisations were among the 10 recognised by the government at that time as “especially concerned with end-of-life care.”<sup>39</sup> Only these three, however, specifically advocated the right to self-determination at the end of life. An important side note here is that by

35 Brussels, Belgian Senate: Parlementaire documenten, Wetsvoorstellen, S. 738/1 (1984–1985): Roland Gilet, *Voorstel van wet betreffende de hardnekkige voortzetting van een uitzichtloze therapie* (10.10.1984). The members of the ADMD that drafted the proposition were legal professionals Jeannine Geairain, Simone Guffens and Willem Deswarte.

36 Brussels, Centrum voor Academische en Vrijzinnige Archieven, HV12: Humanistisch Verbond, *Verslag van de Raad van Beheer 1985–1990* (Antwerp 17.5.1989).

37 Leon Favvys, “Recht op Waardig Sterven (rws)”, in: Franky Bussche and Wim Distelmans, *Een goede dood. 2002–2012* (2012): 259–260.

38 For a general history of the organisation and its place in secular Belgian history, the reference work remains to this day: Els Witte and Jeffrey Tyssens, *De vrijzinnige traditie in België. Van getolereerde tegencultuur tot erkende levensbeschouwing* (Brussels: VUBPress 1996).

39 In 1986, Wivina Demeester, State Secretary for Public Health and Care for the Disabled for the Christian Democrats, organised a bioethics colloquium in the late 1980s in collaboration with different universities. In the report that ensued, which was published by a very extensive group of researchers, no less than a hundred pages were spent on the ‘problem of the end of life’. In it, I find the aforementioned listing: *Bio-ethica in de Jaren '90* (Antwerp: Omega Editions 1987): 367–369.

1985, the ADMD and RWS were already part of over 30 like-minded organisations across the globe with a membership exceeding 100,000.<sup>40</sup>

Euthanasia advocacy emerging as late as the 1980s in Belgium is not at all that surprising, given the fact that abortion advocacy and issues related to it were at the forefront until their decriminalisation in 1990. This included high-profile cases, multiple political initiatives, and even contributions by the magistrature.<sup>41</sup> Advocacy on ethical dilemmas, however, struggled, in a post-war context, to deal with the heritage of Nazism. One of the reasons euthanasia advocacy came about only after that of abortion was, as a former president of the HV put it, the fact that, in general, people tended to be more accepting of intervening at the beginning of life than they were at the end.<sup>42</sup> When looking into the debates and publications of the period, referencing Nazi practices was often used to delegitimise end-of-life advocacy.

With regard to the HV in Flanders advocating euthanasia, roughly four periods can be distinguished. In the first two periods, the HV did reconnaissance, collected materials and examined its own position. In the second half of the 1980s, taskforces were active in researching bioethics and euthanasia from a humanist perspective. At this point, information and action were no longer limited to the local level but were also centralised. At the beginning of the 1990s, lectures became more specialised, and the broader subjects of patient care and bioethics were investigated. At this point, we see that lectures were given not only by ethicists, legal professionals, philosophers and advocates, but also by medical professionals. The HV timeline to some extent corresponds to the ADMD and RWS, although research into their history is currently not available. The latter two advocacy groups did start their specific advocacy work a few years earlier.<sup>43</sup>

It is important to note, however, that the impact of the advocacy was somewhat limited. The organisations themselves did not boast a large membership, nor did they work particularly well together to strengthen their

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40 Paula Caucanas-Pisier, *Les associations pour le droit de mourir dans la dignité* (S.l.: Concilium 199 1985): 75–85. The organisations themselves were presumably not all that large. ADMD counted only approximately 1000 members by 1984.

41 Expertly shown by Witte in “Twintig jaar politieke strijd rond de abortuswetgeving” (1990): 427–487.

42 Interview of the author with Lydia Blontrock (Redu 24.4.2014).

43 Niels De Nutte, “So to Live, that One Has also at the Right Time One’s Will to Death! Humanist Euthanasia Advocacy in Flanders Between the 1970s and the 1990s. A Story of Personal Choice and Therapeutic Tenacity”, *Essays in the Philosophy of Humanism* 28 (2020): 13–14.

endeavour.<sup>44</sup> One prominent example here specifically concerns living wills. The HV and RWS set out to collaborate on the creation of a databank. For a variety of reasons, such as the RWS wanting to remain pluralist and the HV insisting on using their own template, this aim was never realised. This resulted in partner organisations displaying living wills from both the RWS and HV, even though these documents themselves could hardly be told apart, as far as their content was concerned.<sup>45</sup> Another aspect that made advocacy less than optimal, was the fact that storing living wills was an option often reserved only for members. Nevertheless, the number of wills might have been quite substantial. By 2001, one year before decriminalisation, the ADMD held some 800 wills.<sup>46</sup>

The first mention of a living will in Belgium occurred in 1979 with the presentation of an American example during a national TV broadcast provided by the humanist sphere.<sup>47</sup> As we have seen, throughout the 1980s, three organisations made the right to euthanasia, the active variant included, (one of their) main goal(s). In the brochures and texts that framed the need for living wills, the three referred without fail to living wills and the right to self-determination as an urgent need, given what was perceived as the therapeutic tenacity by medical professionals as a consequence of the rapid advances in medical technology.<sup>48</sup> ‘Dignified life’ and ‘dignified death’, understood as a life and death in the manner of and at the time of one’s own choosing, were a part of their narrative. Living wills were, however, not seen by the advocacy groups merely as a tool with which to gain access to active euthanasia, an illegal practice at that time, but also as a document that allowed patients and physicians to communicate. Patients’ rights, palliative care – although not explicitly – and

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44 The membership of the entire secular sphere, of which the HV was only one organisation, constituted approximately 1%. Regarding the RWS, I know that even Hugo Van den Enden, its vice-president confirmed it to be a small organisation with no real influence on the creation of the 2002 euthanasia law. Jeffrey Tyssens, “The Road from Enlightenment to Indifference. Unbelief in Flanders”, *The Low Countries: Arts and Society in Flanders and the Netherlands* 10 (2002): 45; Interview of the author with Wim Distelmans (Wemmel 4.6.2014).

45 Interview of the author with Hilde De Paepe (Antwerp 20.3.2014).

46 Herremans, “Gerichte praktijkervaringen met voorafgaande wilsverklaringen” (2003): 138.

47 Belgium, together with the Netherlands, was one of most probably only two countries in which state television provided regular timeslot for broadcasts by life stance groups. See Jeffrey Tyssens and Niels De Nutte, “Comparative Humanisms: Secularity and Life Stances in the Post-War Public Sphere”, in: Niels De Nutte and Bert Gasenbeek (eds.), *Looking Back to Look Forward: Organised Humanism in the World. Belgium, Great Britain, the Netherlands and the United States of America: 1945–2005* (Brussels: ASP 2019): 151–171.

48 One such an example is HV brochure, see Brussels, Centrum voor Academische en Vrijzinnige Archieven, HV12: *Raad van Beheer 1985–1990. Werknota voor de RvB betreffende euthanasie en testamentenbank* (Antwerp 16.10.1985).

euthanasia were treated not as antithetical from the very beginning. By the 1990s, it became exceedingly exceptional not to find these three intertwined.

By the mid-1980s all of the organisations possessed a living will databank in one form or another. Their terminology differed, but the contents of the documents were almost identical. The RWS used the Dutch term '*levenstestament*' and the ADMD, its literal translation '*testament de vie*' and other variants, since at that time, no established translation existed for 'living will' in the French language. The HV used the term '*euthanasieverklaring*' (declaration of euthanasia) but, in essence, offered the exact same document as the RWS.<sup>49</sup> Living wills were used to achieve two goals. On a personal level, the documents provided insurance that the will of the patient, where he or she was no longer capable of expressing that will, was available to both the family and the medical professionals. This goal was assured by writing its contents by hand and ending with a signature, and by attesting to the durable nature of the requests it contained by filing the document annually with the databank (HV) or adding a stamp annually (RWS, ADMD).<sup>50</sup> Ensuring that the information reached the necessary people was achieved by ensuring the document was made readily available by being small enough to fit into a wallet, adding a copy to the medical card<sup>51</sup> and by using guarantors in the form of family, friends and familiar physicians. The latter was advised in order to make use of the 'good faith' of the doctors, an issue not without merit, as we have seen. In the case of applicants who were socially isolated, the organisations provided guarantors from among their membership or personnel.<sup>52</sup> As regards the advocacy organisations themselves, the goal of the databanks was, of course, activism. The ultimate aim of the HV, RWS and ADMD was to decriminalise the practice of (active) euthanasia. This endeavour was not helped by the general rule of limiting the use of databanks to members and even going so far as to cancel the service if the membership fee was not paid.<sup>53</sup>

49 Hilde De Paepe, one of the members of the euthanasia working group of the HV responsible for the creation of the document states that it was the board of the organisation that wanted a separate document from the RWS, even though both of them were, for all intents and purposes, equal to one another. Interview of the author with Hilde De Paepe (20.3.2014).

50 Yvon Kenis, *Choisir sa mort. Une liberté un droit. Présentation e l'ADMD* (Brussels: ADMD 1989): 19; Anja Tack (ed.), *Omtrent het levenseinde* (Ghent: August Vermeylenfonds 1999): 65.

51 Tack (ed.), *Omtrent het levenseinde* (1999): 66–67.

52 Kenis, *Choisir sa mort* (1989): 20.

53 It is unclear if this practice persisted. The HV opened its databank in the late 1980s. For the ADMD and RWS this remains an unknown.

.3.2. De euthanasieverklaring is als volgt opgesteld en is aan te vragen bij het Humanistisch Verbond

Ik ondergetekende: ..... adres: .....  
 geboren te: ..... op: .....  
 verklaar na grondige overweging, uit vrije wil en in het bezit van mijn volle verstand, wat volgt:

1. Wanneer ik door ziekte, ongeval of welke oorzaak ook in een lichamelijke en of geestelijke toestand verkeer waaruit geen herstel tot een zinvolle en woordige levensstaat te verwachten is en ik op dat ogenblik niet meer in staat ben mijn wil kenbaar te maken:

- **WEIGERIK**
  - middelen of technieken die de levensprocessen in mij onderhouden of verlengen<sup>(1)</sup>
  - middelen of technieken die mijn bewustzijn onderhouden of opwekken<sup>(2)</sup>
- **EISIK**
  - dat men mij in voldoende mate middelen toedient om de pijn te stillen, zelfs indien dat mijn dood zou versnellen<sup>(3)</sup>
- **VERLANGIK**
  - dat **ACTIEVE EUTHANASIE** op mij wordt toegepast<sup>(4)</sup>

2. Bijzondere wensen<sup>(5)</sup>  
 .....  
 .....

3. In dit document werd door mij niets geschrapt<sup>(6)</sup>

datum: ..... handtekening: .....  
 Kopieën in het bezit van<sup>(6)</sup> .....

68

(1) Deze tekst moet indien mogelijk met de hand worden overgeschreven. Hij moet in elk geval gedateerd en ondertekend worden. Het is nuttig de euthanasieverklaring jaarlijks te herbevestigen want dit getuigt van de standvastigheid van uw wil ter zake.  
 (2) Dit kan u wettelijk onmogelijk.  
 (3) Euthanasie is nog steeds verboden in België. Dit kan dus slechts een dringende vraag zijn.  
 (4) Het kan zinvol zijn om een persoon aan te duiden (eventueel een moreel consultant) die kan optreden in uw naam als u zelf niet meer in staat bent uw stervenwens kenbaar te maken.  
 (5) Dit is een toevoeging uit veiligheidsoverwegingen.  
 (6) Een kopie van uw euthanasieverklaring kan worden gegeven aan bijvoorbeeld uw familieleden, huisarts, moreel consultant... Het geven van een kopie aan uw huisarts is tevens een gelegenheid om zijn/haar oepening over euthanasie te kennen en dus te weten of men op hem/haar kan rekenen als deze situatie zich voordoet.

69

FIGURE 9.2 Template of a living will by the HV as used in 1999. This example shows on the left side a visual summary of the clauses, and on the right side the legal situation related to each of the demands.

SOURCE: TACK (ED.), *OMTRENT HET LEVENSEINDE* (1999): 68–69.

The documents themselves contained a few standard clauses (see Figure 9.2).<sup>54</sup> They began by stating that the person drawing up the document was of sound mind and had written the contents of their own free will, so that what was written down could be adhered to in the event of intellectual or moral decay with no hope, beyond reasonable doubt, of being cured of an affliction. Where the undersigned could no longer express their will, he or she did:

- a. Not want to be subjected to processes or products that prolong life unnecessarily;
- b. Not want to be kept alive artificially;
- c. Want to be given enough drugs to ease any pain of suffering, even if this leads to a hastened death;
- d. Wish for active euthanasia to be carried out.

The ADMD, RWS and HV emphasised that clauses A, B and C could be enforced legally, whereas in the case of clause D, that of active euthanasia, this could only be considered an imperative request, one which not all members included

54 Herremans, "Gerichte praktijkervaringen met voorafgaande wilsverklaringen" (2003): 137–138; Tack (ed.), *Omtrent het levenseinde* (1999): 64–65, 69.

in their living will, since not all of them opted for all four clauses. The advocacy groups supported the idea of providing a copy to the patient's general practitioner, since this guaranteed that the patient and family knew the position of the physician, and whether he or she could be relied upon if the living will were to be used. The ADMD even went so far as to state that this practice improved the relationship between patient and doctor, and assured any other attending physicians that the will of the patient and current medical insights were taken into account (at the time the living will was drafted).

Although, to this day, no data exists on how many of these living wills existed prior to the partial decriminalisation of euthanasia in 2002, or how many of them were used, successfully or otherwise, it stands to reason that the initiative had some impact. I have already attested to the facts that some doctors were found willing to act as a guarantor and that by the mid-1980s, a substantial part of the medical corps was willing to perform a variety of end-of-life treatments. Added to this is the certainty of some form of euthanasia incidence. By 2000, two years prior to decriminalisation, a study showed that in almost four out of 10 deaths in Flanders, the Dutch-speaking part of Belgium, death ensued by using a form of end-of-life treatment. Active euthanasia was estimated to have been used in 1% of all cases.<sup>55</sup>

Using advance care planning, however, goes beyond simply having one's wishes respected or changing existing laws. Research shows that those who plan for their care most often have a better quality of life, decreased stress levels, choose less aggressive care, and see decreased psychological impact on family members.<sup>56</sup> As stated by geriatric psychologist Laraine Winter and geriatrician Susan M. Parks, "Ironically, I found that those who avoid living wills and end-of-life conversations are the least likely to have treatment wishes respected, because their proxies are unlikely to know their wishes."<sup>57</sup>

55 Hugo Van den Enden, "Beschouwingen bij de resultaten van het Vlaamse HALP-onderzoek", *Ethiek & Maatschappij* 4 (2001), no. 1: 132.

56 Jennifer W. Mack, Jane C. Weeks a.o., "End-of-Life Discussions, Goal Attainment, and Distress at the End of Life: Predictors and Outcomes of Receipt of Care Consistent With Preferences", *Journal of Clinical Oncology* 28 (2012), no. 7: 1203–1208; Institute of Medicine, *Dying in America: Improving Quality and Honoring Individual Preferences Near the End of Life* (Washington DC: The National Academies Press 2015): 369; Teddy D. Warner, Laura Weiss Roberts a.o., "Uncertainty and Opposition of Medical Students Toward Assisted Death Practices", *Journal of Pain and Symptom Management* 22 (2001), no. 2: 657–667; Alexi A. Wright, Baohui Zhang a.o., "Associations Between End-of-Life Discussions, Patient Mental Health, Medical Care Near Death, and Caregiver Bereavement Adjustment", *Journal of the American Medical Association* 300 (2008), no. 14: 1665–1673.

57 Laraine Winter and Susan M. Parks, "Acceptors and Rejecters of Life-Sustaining Treatment: Differences in Advance Care Planning Characteristics", *Journal of Applied Gerontology* 31 (2012), no. 6: 741.

## 7 Law-Making Initiatives

A most likely less successful (but no less meaningful) battlefield was that of law-making. I indicated earlier the near futility of the attempts in the mid-1980s. Their content, however, did have merit when looking at the broader scope of doctor-patient relationships and euthanasia advocacy. The 1984 proposal by senator Roland Gilet and the very similar proposal in 1986 by senator Jacques Lepaffe aimed to harmonise the Belgian penal code with the deontological rule that therapeutical tenacity should be avoided.<sup>58</sup> Criminal prosecution on the basis of these provisions would no longer hang over physicians 'like the sword of Damocles', enabling them to avoid 'needless suffering'. The proposals aimed to remove the punishable nature of Articles 401bis and 420bis of the penal code, refraining from (the continuation of) treatment or resuscitation with the sole purpose of 'artificially prolonging life'. It aimed for the possibility for the decision to be made by the physician, not only at the request of the conscious sick person or pursuant to a written statement – i.e. living will – dating from when the sick person was still conscious, but also on their own initiative. However, the condition was that the patient had to be suffering from an incurable ailment of pathological origin or caused by an accident.

The proposal by senator Edgard Dhose of 1985 went somewhat further in the sense that it sought to create the possibility of making a statement that, when afflicted with an incurable disease that causes suffering and inevitable death, either only pain-controlling agents should be administered or, if the suffering could not be alleviated sufficiently, that the physician could hasten death.<sup>59</sup> While some may view this as a sweeping proposition, it did have limitations. It was required that the person concerned suffered from a condition that was incurable and inevitably led to death. In the first instance, it could only be requested that no treatment was applied, except for the administration of painkillers. Death could only be hastened when the pain could not be adequately controlled.

The three proposals concerned both passive, indirect and active euthanasia. What is clear, however, is the will of these senators to combat medical procedures that were seen as unnecessary, and those practices that were perceived

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58 Brussels, Belgian Senate: Parlementaire documenten, Wetsvoorstellen, S. 91/1 (1985–1986): Jacques Lepaffe, *Voorstel van wet betreffende de hardnekkige voortzetting van een uitzichtloze therapie* (22.1.1986). Both Gilet and Lepaffe were members of Front Démocratique des Francophones (FDF).

59 Ann Coolsaet, "Een overzicht van de Belgische wetsvoorstellen inzake euthanasie", *Tijdschrift voor gezondheidsrecht* (1995–1996): 262–271. Edgard Dhose was a senator for the French speaking socialists (Parti Socialiste) and member of ADMD.

as therapeutic tenacity. Of interest is that these proposals were not written expressly from the point of view of the patient, as one might expect from the ADMD as an advocacy group, but tried, to some extent, to offer legal leeway to physicians themselves.

In the Belgian penal code of the mid-1980s, passive and indirect euthanasia posed little to no problem.<sup>60</sup> They were judicially considered normal medical treatments and most likely not prosecuted. In the event of the patient not being able to express their own will, consent for medical treatment was needed from those legally responsible for them. As such, living wills were not without importance in combatting any real or perceived therapeutic tenacity. Active euthanasia however was, *stricto sensu*, seen as manslaughter in criminal law under Articles 393 and 394, and as such was punishable by lifelong forced labour or the death penalty.<sup>61</sup> Two options existed to refrain from conviction for active euthanasia. Judges and jury could allow for their 'conscience' to contradict fact or argue that the defendant acted under the influence of a 'power they could not withstand'. The latter could allow for euthanasia motives to be categorised as 'irresistible moral pressure' under Article 71 of the penal code and acquit the accused on those grounds. Historical research on any such cases is, to this day, unfortunately non-existent.

## 8 Conclusion

This chapter has contributed to the overall goals of this volume in three ways. Firstly, I have argued for the usefulness of living wills and other advance care directives in mitigating uncertainty when dealing with end-of-life decision-making, both for the medical professional and the patient. Secondly, I have made explicit that the influence of medical ethics and personal philosophical disposition should not be underestimated when dealing with medical uncertainty around death. In a Belgian context, this was apparent as early as the 1930s, where the terminology with regards to euthanasia as mercy killing differed greatly along the philosophical-religious cleavage, both in tone and frame of reference.<sup>62</sup> On the secular side, it was felt that the time had come for a person to be able to negotiate their end, instead of treating it as a natural

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60 Van den Enden, "Euthanasie in België van juridisch en deontologisch oogpunt" (1984): 103–107.

61 The death penalty was officially abolished in 1996.

62 De Nutte, "In the Face of Death" (2022): 88.

or divine inevitability.<sup>63</sup> Thirdly, I have shown that Belgian living wills emerged when self-determination came to the forefront of a variety of societal issues, most notably that of abortion. Death studies specialist Naomi Richards describes this as a critique of modernist medicine resulting in a “subjective determination about the value of his or her life.”<sup>64</sup> Self-determination was (and is) used, in essence, as a way of allowing patients to prevent any form of cloaking of an individual's impending end by the medical corps. In this case, evidenced by (perceived) therapeutic tenacity, a neologism at that time.<sup>65</sup>

With this paper, I have attempted to contribute to the historical work done on euthanasia as a practice. By focussing my research on the emergence, content and, to some extent, the use of living wills, I have been able to paint a picture that is more fine-grained than work that focusses on positioning done by organisations, advocates and specialists. This has allowed moving somewhat beyond the conflict model that pits proponents of euthanasia as self-determination against those who condemn the practice.

Upon further examination of the contents of living wills, we see that they are much more than simple advocacy tools for active euthanasia. Mitigating uncertainty for both the patient and physician was one of the express goals when the initiatives were launched. From their conception in Belgium in the early 1980s, these documents included a variety of what would later be known as the spectrum of medical decisions at the end of life. Emblematic here is that far from all those in possession of a living will opted for active euthanasia, but instead were content with less controversial forms of end-of-life care. This corresponds quite neatly with the determination of oncologist Jan Bernheim a.o., that the palliative care sector, traditionally seen as a more religiously inspired branch of end-of-life care, and the euthanasia sector came to be established alongside one another in the Belgian context. Active, passive and indirect euthanasia were very different both in practice and in ethical connotation. Identifying support for or opposition to these respective standpoints is thus not an easy task.

Some arguments, however, can equally be made for continued acceptance of a conflict model where personal philosophical dispositions remain a factor, if not necessarily the most influential. For instance, although a surprising

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63 Anne Carol, “Prêtres et médecins face à la mort et aux mourants en France, xixe-1e moitié du xxe siècle”, *Rives nord-méditerranéennes* 22 (2005): 109–124; Karel Velle, *De nieuwe biechtvaders. De sociale geschiedenis van de arts in België* (Leuven: Kritak 1991): 78.

64 Naomi Richards, “The Fight-to-Die: Older People and Death Activism”, *International Journal of Ageing and Later Life* 7 (2012), no. 1: 13–.

65 The Dutch variant ‘therapeutische hardnekkigheid’ was highly uncommon, whereas even the French ‘acharnement thérapeutique’ was found only in recent dictionaries. See *Bio-ethica in de Jaren '90* (1987): 353.

number of physicians acted as guarantors, and by the mid-1980s a substantial number of them attested to support for active euthanasia, it is unclear how many living wills were used in actuality, and equally, unclear as to whether doctors acting as guarantors were actually sympathetic to a patient's plight. Living wills did have the potential to open up the discussion over a form of advance care planning and, quite clearly, have positive side effects if used. I have shown that the situation in criminal law did allow for the use of living wills for a variety of euthanasic forms, even when the document itself held no legal weight. Unfortunately, we lack adequate archival material to ascertain when and whether their potential was utilised or realised. If self-determination was the ultimate goal of those drafting the living wills, which we see quite explicitly in the way the templates were drawn up, it cannot currently be determined how many saw their will respected. This is something I hope to tackle in the future by the use of oral history methodology.

Even though we lack data on the use of living wills in the two final decades of the twentieth century in Belgium, it has become clear that living wills have the potential – as was one of the intentions of those organisations providing them – to reduce insecurities on both sides of the relationship between the medical corps and the patient. The ADMD, RWS and HV urged their members to have physicians act as guarantors, to carry copies of their living wills in their wallets, and to include these in medical files with the express hope that support by a general practitioner, or the availability of the will to whichever medical professional might be confronted with the patient, would open up a dialogue and help both sides of the equation to cope with the situation. This was shown in the law proposals of the mid-1980s as well. Not only does the living will serve to protect the patient against real or perceived therapeutic tenacity, but it should also allow a physician some leeway and support in performing a medical act in which both sides have a vested interest. The added value of patients having a better quality of life and having to use less aggressive care should only strengthen medical professionals to support the implementation and use of advance care planning, be it in the form of a living will or other means.

# The Art and Science of Medical Decision-making: Perspectives from Nineteenth-Century Philosophy on the Role of Intuition in Contemporary Medicine

*Måns Lindén and Jonatan Wistrand*

## 1 Introduction

Medical decision-making has always been central to healthcare, and even though the reliable judgement of an experienced physician's clinical eye is a standard trope in Western culture, the role of intuition in clinical decision-making remains controversial. As an intangible method of clinical evaluation, the mystery of intuition still lies at the heart of medical uncertainty. In the 2017 edition of the *Oxford Handbook of Clinical Medicine*, clinical intuition is, somewhat paradoxically, described as both “vital” and “ill-defined”.<sup>1</sup> The relationship between intuition and clinical medicine thus remains to be clarified.

From an historical point of view, it might seem as if, with the scientific breakthroughs in Western medicine in the late nineteenth century, no room would remain for anything but strict analysis in the diagnosis, prognosis, and treatment of disease. A closer look, however, reveals that simultaneously with, or rather perhaps as a consequence to the scientification of medicine, an awareness of the epistemic uncertainty of clinical practice took form within the medical community. “Medicine is a science of uncertainty and an art of probability,” the Canadian physician William Osler declared to his medical students a century ago.<sup>2</sup> The Oslerian aphorism exemplifies how a creative self-criticism towards the knowledge and knowledge gaps in medicine took form within the scientific community during his time. Less well known however, but equally interesting, is that in parallel with the scientific turn of medicine in the late

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1 Ian Wilkinson, Tim Raine, Kate Wiles, Anna Goodhart, Catriona Hall and Harriet O'Neill, *Oxford Handbook of Clinical Medicine* (New York: Oxford University Press 2017): 21.

2 William Bean, *Sir William Osler: Aphorisms from his Bedside Teachings and Writings* (Springfield: Charles C Thomas 1961): 129.

nineteenth century, an elaborate philosophical discourse on the role of intuition in scientific reasoning was developed by the Swedish philosopher, and earlier medical student, Hans Larsson (1862–1944). The writings of Larsson, though partly forgotten today, had a substantial impact on the epistemological discussions taking shape during the twentieth century in Sweden, both within the philosophical community and beyond the academy. Larsson lamented how an intuitive capacity was overlooked in the science of the 1890s, due to ideals of “methodical work in closed ranks”<sup>3</sup>, and he predicted that “much of what is now only grasped by the clinical eye will one day belong to clinical science.”<sup>4</sup>

In a Swedish governmental report from 1948 on how the modern healthcare system in Sweden should best be designed, intuitive competence was indeed emphasised. In their training, medical students and junior physicians should not just be taught “technical” skills, but also have a capacity for “associative thinking”, “compassion”, and “intuition”.<sup>5</sup> But in the second half of the twentieth century, the debate on what role intuition had in clinical practice became increasingly polarised. A “binary opposition between intuitive and statistical reasoning” took form at the universities in the 1950s, where:

supporters of the statistical method often referred to it in positive terms as objective, reliable, rigorous, scientific, and precise. Others referred to the statistical method in pejorative terms, such as mechanical, atomistic, arbitrary, rigid, and sterile.<sup>6</sup>

With the rise of evidence-based medicine (EBM) in the 1990s, this debate on intuitive judgement versus statistics in medicine became an even more polarising issue.<sup>7</sup> Finally, in 1998, the relevance of Larsson’s philosophy for understanding medical decision-making was investigated by Ingela Josefsson, professor of Working Life Studies at Södertörn University. In a focus group study with practising physicians, Josefsson used Larsson’s writings to stimulate discussions about the role of intuition in clinical

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3 Hans Larsson, *Intuition: Några ord om diktning och vetenskap* (Stockholm: Albert Bonniers Förlag 1892): 7.

4 Hans Larsson, *Idéer och makter* (Lund: C. W. K. Gleerups Förlag 1908): 79.

5 *Den öppna läkarvården i riket. Utredning och förslag av Medicinalstyrelsen* (SOU-utredning 1948:14) (Stockholm: Inrikesdepartementet 1948): 207.

6 Hillel D. Braude, *Intuition in Medicine: A Philosophical Defense of Clinical Reasoning* (Chicago: University of Chicago Press 2012): 107.

7 Trisha Greenhalgh, “Intuition and Evidence—Uneasy Bedfellows?”, *The British Journal of General Practice: The Journal of the Royal College of General Practitioners* 52 (2002), no. 478: 395–400.

practice.<sup>8</sup> Josefsson writes in her preface to a 2012 reprint of Larsson's first book on intuition, that many young doctors:

are overwhelmed by the difficulties they face when starting to practise. [...] During their education, logical thinking has been cultivated within the framework of science, while less attention has been given to emotion, though it is also a source of knowledge. [Hans Larsson] reinforces the insight that the professional skills of a doctor consist of both science and art, and that intuitive thinking requires time and active reflection in order to develop.<sup>9</sup>

This chapter follows Josefsson's initiative to explore Larsson's writings in search of insights about intuition that might help us better understand how uncertainty is dealt with in medical practice. More specifically the chapter elaborates on how Larsson's theory of intuition from 1892 could guide us in our interpretation of how contemporary medical essays describe medical decision-making. Larsson will thus be the lens through which we interpret the role of clinical intuition in modern medicine, as described by two present-day medical essays: *How Doctors Think* (2007) by Jerome Groopman, and *What Doctors Feel* (2013) by Danielle Ofri.

## 2 Medical Humanities – a Bridge between Medical Practice and the Humanities

Methodologically, this chapter draws on the interdisciplinary field of medical humanities, where medical practice is studied from the perspective of the humanities. Guided by theories and ideas drawn from literary studies, philosophy, and the history of medicine, medical humanities aims at a two-way communication between the humanities and clinical medicine.<sup>10</sup> It is worth bearing in mind that medical humanities should be regarded as a guide for modern medicine rather than an adversary.<sup>11</sup> That is also true for this chapter, where a

8 Ingela Josefsson, *Läkarens yrkeskunnande* (Lund: Studentlitteratur 1998).

9 Ingela Josefsson, "Förord", in: Hans Larsson, *Intuition. Några ord om diktning och vetenskap* (Stockholm: Dialoger Förlag & Metod AB 2012): 6.

10 Thomas R. Cole, Nathan Carlin and Ronald A. Carson, *Medical Humanities: An introduction* (New York: Cambridge University Press 2014): 2–6; Katarina Bernhardsson, "Medicinsk humaniora", in: Ola Sigurdsson (ed.), *Kultur och hälsa: Ett vidgat perspektiv* (Gothenburg: University of Gothenburg, Department of Literature, History of Ideas, and Religion 2014): 91–92.

11 Jonatan Wistrand, *Läkaren som patient: Dokumentära och litterära vittnesmål under 1900- och 2000-tal* (Lund: Lund University Faculty of Medicine 2019): 52–53.

comparative conceptual analysis will explore how notions of intuition derived from philosophy can lead us to a better understanding of how medical uncertainty is dealt with in clinical practice. After carefully studying key concepts of Hans Larsson's intuition theory, we review the medical essays by Groopman and Ofri with a focus on passages describing decision-making. Accounts of clinical reasoning are scrutinised for notions of clinical intuition. Such notions are then summarised and compared with Larsson's theory. Any similarities or differences discerned are outlined in detail. Implications for the medical profession's discourse on intuition are then discussed. It is important to stress that the analysis does not countenance a claim to universal truth; rather, the interpretations in this chapter should be regarded as one among many attempts to clarify the role of intuition in contemporary medical practice.

Why then concentrate on essays by Jerome Groopman and Danielle Ofri? Both are highly profiled medical doctors, academics, and writers. Groopman is an oncologist, haematologist, and a professor at Harvard Medical School, Ofri is an associate professor of medicine at New York University School of Medicine. Furthermore, their books contain narratives and visions about medical decision-making which may have a similar impact on junior doctors' clinical training in the twenty-first century, as the writings of William Osler had on junior doctors in the early twentieth century.

### 3 Hans Larsson's Intuition Theory

The philosopher Hans Larsson was a professor of theoretical philosophy at Lund University and member of the Swedish Academy (see Figure 10.1). According to Larsson, praxis should not be deduced from theory, but rest on common sense and experience, and be motivated and tested with theory.<sup>12</sup> As a young man in the 1880s, Larsson, who thought of himself as neo-Kantian, was critical of increasing positivism and naturalism in science and art, trends that considered intuition suspect and the emotions irrational and primitive, and which endorsed "pure" logical thinking without emotional interference as the highest evolutionary standard.<sup>13</sup> Larsson understood intuition as a synthesis of knowledge with an appropriate emotional reaction, based on Kant's notion of *comprehensio aesthetica* as presented in the *Critique of Judgment* (1790). Larsson's theory was outlined in the work *Intuition* from 1892. In 1893, he published his doctoral dissertation, a critique of Kant's transcendental deduction of the twelve categories of understanding, favouring Fichte's revisions. He further

12 Hans Larsson, *Kunskapslivet* (Stockholm: Albert Bonniers Förlag 1920): 5.

13 Hans Larsson, *Intuition* (1892): 5–8.



FIGURE 10.1

Hans Larsson painted by the artist Tora Vega Holmström, ca. 1930.

SOURCE: ART COLLECTION OF THE ACADEMIC SOCIETY (AKADEMISKA FÖRENINGENS KONSTSAMLING) IN LUND. [HTTPS://WWW.AFKONST.SE/GALLERI/TORA-VEGA-HELLSTRM-CA-1930](https://www.afkonst.se/galleri/tora-vega-hellstrm-ca-1930) (ACCESSED ON 5.1.2024).

PHOTOGRAPHER: OLOF LARSSON

elaborated in 1899 on intuitive logic in poetry and the necessity of transcendental deduction in the realms of emotion and free will.<sup>14</sup> In the cultural feud of 1910–1912 which bears August Strindberg's name,<sup>15</sup> Larsson defended the latter. A prolific writer throughout his life, Larsson continuously commented on the catastrophic trajectory of Europe after 1914, clinging to the importance of rational coherence and humanism.<sup>16</sup>

With the rise of irrationalism in twentieth-century Europe came an understanding of intuition as a mystical force, rightfully free from the bounds of logic.<sup>17</sup> Intuition of this kind was nothing like the concept of intuition described by Larsson. Larsson's mission, after all, was to legitimise the logical character of intuition. In that sense his writings conflicted with the ideas of Henri Bergson, who held intuition to be a form of direct perception with metaphysical connotations. Having published on intuition some years before Bergson, Larsson found it necessary in 1912 to print an explicit critique of Bergson's philosophy, but later recognised this move as detrimental to the intuition movement itself, focussing instead on points of convergence with Bergson in essays from 1924.

14 Gunnar Matti, *Det intuitiva livet: Hans Larssons vision om enhet i en splittrad tid* (Hedemora: Gidlunds Förlag 2000): 217, note 14.

15 Andreas Nyblom, "Strindbergsfejden 1910–1912", *Litteraturbanken* (2011), <https://litteraturbanken.se/presentationer/specialomraden/Strindbergsfejden.html> (accessed on 10.9.2024).

16 Matti, *Det intuitiva livet* (2000): 142–144.

17 Matti, *Det intuitiva livet* (2000): 162–163.

Throughout his life, Larsson argued that intuition was a desirable union of emotion and reason, the highest logical expression of the human mind, and a method of bridging the arts and sciences.

The lineage of intuition theory was, according to Larsson, marked by the philosophers Plotinus, Meister Eckhart, Nicolaus Cusanus and Baruch Spinoza.<sup>18</sup> By using two Kantian terms, denoting separate ways of linking objects in the mind, *comprehensio logica* and *comprehensio aesthetica*, Larsson explained intuition as a form of knowledge synthesis:

The conceptions' (relatively) simultaneous presence in mind, this *comprehensio aesthetica* (not just *logica*), to follow Kant, is what I want to consider as the essence of an intuitive act of thought. The word intuition can also appropriately be attributed to this very character, for what the term draws attention to is that the notions, which in abstract thought are only indirectly included in the estimation by means of the general formula by which their sum is expressed, are here, on the other hand, highlighted and all immediate and at hand, so that the eye may gaze out on them and instantly see the connections between them, something which reason otherwise must calculate. And it is this *comprehensio aesthetica* which is not always accorded its proper significance; not in science, and what is more, in our day, not in art either.<sup>19</sup>

Larsson claimed that intuition exists in both low and high forms. It begins as a lower form of *comprehensio aesthetica* – what is retained in the mind's eye without proper logical connections and renders our emotional response irrational. Logic and abstract thinking, *comprehensio logica*, separate emotion and reason, but only as a temporary, albeit necessary, phase of the learning process. Emotion and thought reunite when analytic cognition reaches a significant level of familiarity with its objects of study and their interconnected contexts, enabling a new synthesis based on the deeper understanding gained from the analysis – a higher form of *comprehensio aesthetica*, with a better-tuned, rational emotional response.<sup>20</sup> Intuition has the ability to hold a wealth of logical connections in mind simultaneously, which makes it possible to regard it as both the opposite and the fulfilment of discursive reasoning:

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18 Hans Larsson, *Intuitionsproblemet: Särskilt med hänsyn till Henri Bergsons teori* (Stockholm: Albert Bonniers Förlag 1912): 64.

19 Larsson, *Intuition* (1892): 21.

20 Larsson, *Intuition* (1892): 15.

I want to define the concept of intuition in such a way that intuitive perception becomes the exact opposite of the discursive, and nothing else. One perceives discursively when one successively grasps one element after the other; intuitively in so far as one is able to simultaneously maintain the diversity of the elements. Or more precisely, discursive perception is successive perception without what previously passed being kept in mind, while intuitive perception is a far more rapid discourse, during which what has passed is still retained all told.<sup>21</sup>

The pinnacle of logical understanding is therefore the intuitive *comprehensio aesthetica*, not the stepwisely analytic *comprehensio logica*. If intuition is perceived as mysterious or immersed in shadow, it is because we can experience it but not analytically capture how it operates – like Kant, Larsson claimed that *comprehensio aesthetica* can grasp more than can be compacted into an abstract concept.<sup>22</sup> According to Larsson, intuition is a viewpoint from which to spy on new theoretical connections, promoting creativity.

Larsson argued that the mechanical logic, *comprehensio logica*, although adequate in the natural sciences, can be misleading in the arts and humanities. An insect's organism can be divided into separate functional sections, but confusion would ensue if the same were attempted with the history of an author's life; separating the biography from the body of work might sever the intimate bonds which connect the parts.<sup>23</sup> Similarly, the causes of the Thirty Years' War cannot be mechanically examined, and analysing the religious and political roots of this conflict separately would confound rather than clarify.<sup>24</sup>

According to Larsson, *comprehensio aesthetica*, the organic logic which characterises intuitive synthesis, involves using several principles of composition at once: chronological, to get the overview; thematic, to get thoroughness; and systematic, to get an understanding. He exemplified this with the writer of fiction who, rather than straightforwardly describe his characters, leaves it to the reader to gauge their personalities from different angles and perspectives in the narrative.<sup>25</sup> Just like the novelist, the experienced psychologist can intuit the many sides of a person's character, which cannot be well explained in a stepwise, mechanical fashion. Larsson argues that in this way intuition is a great asset to science, because it helps further our understanding by grasping

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21 Larsson, *Intuitionsproblemet* (1912): 27–28.

22 Larsson, *Intuition* (1892): 52.

23 Hans Larsson, *Poesiens logik* (Lund: C. W. K. Gleerups Förlag 1899): 139.

24 Larsson, *Poesiens logik* (1899): 140.

25 Larsson, *Poesiens logik* (1899): 138–139, 142–143.

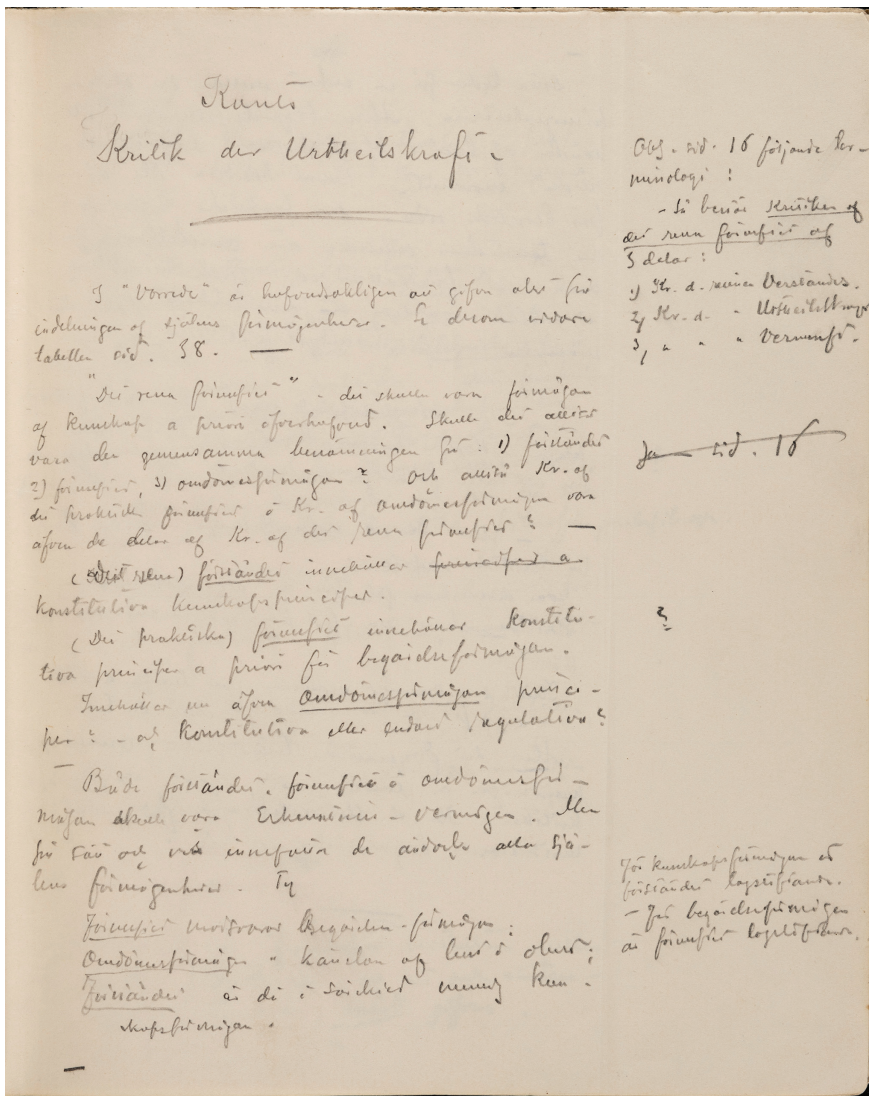


FIGURE 10.2 Larsson's notes on Kant's Critique of Judgment (1790).  
SOURCE: LUND UNIVERSITY LIBRARY'S SPECIAL COLLECTIONS READING ROOM. GENEROUSLY DIGITISED BY THE LIBRARY UPON REQUEST

many causal factors at once and comparing them to one another, allowing us to gain a better, more precise idea of each of them.<sup>26</sup> We will return to this feature to compare medical algorithms and clinical intuition, with the help of Kant's distinctions as described by Larsson (see Figure 10.2).

26 Matti, *Det intuitiva livet* (2000): 72-73.

More abstract is not necessarily more scientific, Larsson said.<sup>27</sup> When scientific knowledge is broadened, it is more personal and concrete than abstract, since it gains in relevance for additional aspects of life. With intuition, the wealth of knowledge from *comprehensio aethetica* is further – and organically – put into perspective with what the individual finds emotionally relevant, giving rise to an “aesthetic atmosphere”. For Larsson, aesthetic atmosphere was a rational form of emotion, the basis (and even the *sine qua non*) of art. Instead of claiming art to be inferior to science as a form of understanding the world, Larsson found science and art to be intrinsically connected through intuition.

Art, in Larsson’s theory, is produced and experienced through intuitive synthesis, and characterised by aesthetic atmosphere. With intuition, an artwork shows us in an instant a collection of various conceptions of integrated thoughts and emotions. The aesthetic qualities of art arise from its organically connected conceptions, related to what is emotionally important to us. Because of intuition, experiencing art wakes us to a fuller, more capable life, by reminding and teaching us what has emotional relevance. Intuition helps to actualise the entire personality.<sup>28</sup>

Larsson himself claimed that analysis will always be necessary, since it reveals how the objects of study are composed. In fact, Larsson consistently cited Goethe’s comparison of synthesis and analysis to breathing in and out; they complement each other in every aspect. Yet judgments are, according to Larsson, inherently mainly syntheses, since they make up a new whole after analysis.<sup>29</sup> Because analysis breaks down the aesthetic atmosphere, it is vital to regain intuition. Larsson was certain that intuition could be regained through experiencing art; that this was indeed one of art’s primary purposes.<sup>30</sup> To his mind, scientific understanding will eventually become art, with our emotions harmonised into an aesthetic atmosphere, no longer impulsive or irrational, but guiding us towards what is important in our lives. Gunnar Matti has noted the utopian features of Larsson’s philosophy: intuition was in many ways an “inner utopia”.<sup>31</sup>

#### 4 The Medical Profession’s Discourse on Clinical Intuition

What then is the contemporary medical profession’s views on clinical intuition? Broadly speaking, there are two schools of thought. Either clinical intuition is

27 Larsson, *Intuition* (1892): 62–63.

28 Matti, *Det intuitiva livet* (2000): 64–67.

29 Hans Larsson, *Logik* (Stockholm: P. A. Norstedt & Söners Förlag 1926): 30–31.

30 Larsson, *Poesiens logik* (1899): 76.

31 Matti, *Det intuitiva livet* (2000): 179.

modelled on Aristotelian virtue ethics, or it is compared to the concept of recognition in the ‘System 1’ thinking of the evergreen dual process theory.

The virtue ethics approach is based on practical wisdom, the Aristotelian virtue of *phronesis*. Modelling clinical reasoning on phronesis was suggested by Edmund Pellegrino, one of the early advocates of medical humanities.<sup>32</sup> Medicine’s “phronesiology” was developed by the bioethicist Kathryn Montgomery.<sup>33</sup> However, neither Pellegrino nor Montgomery had much time for ‘intuition’ or ‘art’ in their epistemologies of medicine, finding them too vague. The connection between phronesis and intuition was made by the philosopher and physician Hillel Braude, who shows how intuitive wisdom, or Aristotelian *nous*, must be incorporated into phronesis. He finds this approach aligned with the polymath Michael Polanyi and his theory of tacit knowledge, and with clinical judgement as detailed by physician and Yale University professor Alvan Feinstein. Braude claims that clinical intuition has synthetic properties, as it “unites different elements such as deductive knowledge, information from observation, and past experience with groups of individuals, as well as statistical information.”<sup>34</sup> Clinical intuition also bridges medical reasoning and moral reasoning.<sup>35</sup> Braude describes clinical intuition and statistics not as contradictory, but as opposite ends of a continuum, cautioning that neglecting the role of intuition in clinical judgement might lead to the ecological fallacy, where inferences about the individual patient are based on population-level data. These insights support Braude’s critique of evidence-based medicine (EBM), and its lack of an epistemology of clinical reasoning, which was devised for EBM’s precursor, clinical epidemiology, by Feinstein in the late 1960s and 1970s. Braude’s argument relies on sociologist Jeanne Daly’s research on the history of EBM:

Clinical epidemiology was born during a time of ferment in health care and amid uncertainty about the processes of clinical decision making. There was a significant exchange of ideas among the founders of the new discipline, but the most influential in the early years was Alvan Feinstein

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32 Braude, *Intuition in Medicine* (2012): XX–XXI. Pellegrino collaborated in this endeavour with David Thomasma.

33 Kathryn Montgomery, *How Doctors Think: Clinical Judgment and the Practice of Medicine* (New York: Oxford University Press 2006): 41.

34 Braude, *Intuition in Medicine* (2012): 123.

35 Braude, *Intuition in Medicine* (2012): XIX.

in the United States. It was Feinstein who determined that the answer to clinical uncertainty lay in science, but not the science of the laboratory. Instead, he set about generating a new science, a science specific to the problems encountered in clinical care, a basic science which would challenge that of the laboratory. He articulated its principles, developed its methods, and conducted studies that addressed a wide range of clinical problems.<sup>36</sup>

Ultimately, Braude argues, incorporating intuition into the epistemology of clinical reasoning will be necessary in order to fully humanise medicine.

The second approach relies on intuition being the same thing as recognition – no more, no less. Suggested by social scientist Herbert Simon, it underlies the dual process theory, developed by cognitive psychologist Daniel Kahneman. Kahneman popularised the theory in his book *Thinking, fast and slow* (2011). Dual process theory suggests that intuitive reasoning, or ‘System 1’, differs significantly from analytic reasoning, or ‘System 2’. ‘System 1’ is fast, associative and passive, with a high capacity, high emotional attachment, and low reliability. ‘System 2’ is slow, rule-based, active, and low-capacity, with low emotional attachment and high reliability. According to this approach, it is important for the clinician to delay intuitive decision-making in ‘System 1’ by consciously using the more objective ‘System 2’. The dual process theory, informed by Kahneman’s influential “heuristics and biases” research with Amos Tversky, has wide applications in medicine, championed by the likes of Pat Croskerry, a professor of emergency medicine, to safeguard clinical judgement from unconscious bias and erroneous conclusions.<sup>37</sup>

In exploring the role of intuition in relation to clinical judgement and medical decision-making, Larsson’s theory and the contemporary professional context together offer a framework for interpreting medical essays by Jerome Groopman and Danielle Ofri. Before focussing on notions of intuitive reasoning *per se*, Larsson’s definition of intuition lends itself to an examination of what the two write about emotion in medical decision-making. A critique of logic in clinical reasoning also seems warranted, as will be seen.

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36 Jeanne Daly, *Evidence-Based Medicine and the Search for a Science of Clinical Care* (Berkeley: University of California Press 2005): 25–26.

37 Pat Croskerry, “A Universal Model of Diagnostic Reasoning”, *Academic Medicine: Journal of the Association of American Medical Colleges* 84 (2009), no. 8: 1022–1028.

## 5 The Role of Emotions in Medical Practice

Jerome Groopman states that most errors in medical practice are cognitive, not technical, and that physicians' feelings play into these errors, without doctors acknowledging or even recognising the emotions biasing their judgement.<sup>38</sup> One example of this is the affective error, which can happen when warm feelings for a patient mean the physician hesitates ordering uncomfortable but necessary procedures, or when dislike of a patient leads to a substandard examination. Another example is what Groopman terms "satisfaction of search", when the gratification of finding an important clue to the patient's problem delays further examination. Groopman observes a dilemma: feeling too much can cloud judgement or cause the physician to break down, while feeling too little risks not providing proper care and attention.<sup>39</sup> Groopman discusses the benefits of "productive anxiety" which up to a certain point elevates mental performance and quickens reactions, supporting the physician's performance.<sup>40</sup> Awareness and the regulation of emotional temperature are important – feelings can lure a physician into taking overly large risks or being too risk averse.

Ofri considers it a mistake not to address the crucial role emotions play in medical decision-making.<sup>41</sup> She offers numerous examples of how clinicians' feelings can guide them in both right and wrong directions, depending on how they are managed. An adequate sense of shame can fuel a doctors' ability to learn from their mistakes and help them develop a stronger sense of competence and responsibility. On the contrary, being shamed by colleagues can have enduring negative consequences, hindering physicians from coming forward to acknowledge their mistakes, especially when the shame is internalised as a black-and-white blame game.<sup>42</sup> Anger can help the physician to resist the unreasonable demands of a manipulative patient, but just as well prevent that same patient from getting the attention they need. Even disgust at a patient's body odour can be reframed as clinical guidance, when mastered:

I was even able to consider the smell something poignant, something that spoke to the patient's suffering. Now when I enter a room with that

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38 Jerome E. Groopman, *How Doctors Think* (Boston: Houghton Mifflin Company 2007): 39–40.

39 Groopman, *How Doctors Think* (2007): 54.

40 Groopman, *How Doctors Think* (2007): 36–37.

41 Danielle Ofri, *What Doctors Feel: How Emotions Affect the Practice of Medicine* (Boston: Beacon Press 2013): 3–5.

42 Ofri, *What Doctors Feel* (2013): 137–139.

kind of smell, I still get the visceral discomfort, but it doesn't incapacitate me. It actually heightens my awareness of the patient's vulnerability.<sup>43</sup>

Likewise, grief can end in despair and burnout, yet when managed correctly can strengthen the doctor's commitment to medicine and deepen their perspective on life.<sup>44</sup> Fear can paralyse a physician at a critical moment, but the same pessimism and doubt in their own judgement can instil caution and respect. According to Ofri, the right amount of fear provides the respect and attention needed in medical practice, because "Being aware of our fear and figuring out how to titrate it appropriately is a vital skill for a doctor. Our patients' lives may depend on it."<sup>45</sup>

Danielle Ofri elaborates on how negative emotions such as fear, shame, and grief promote "anchoring bias": paying inappropriate attention to the first information received and shifting focus away from the bigger picture to the smaller details. And although positive emotions such as joy, gratitude, and pride seem to enhance problem-solving, they can also increase the risk of "attribution bias" or attributing the disease to the patient's identity rather than their situation.<sup>46</sup>

The contradictory influence of emotions on decision-making is familiar to Larsson, who has emotion present at two of three stages in the evolution of intuition: the lowest and the highest. At the lowest stage, emotion controls us and may have detrimental effects (much like in the biases pointed out by Groopman and Ofri). At the middle stage, we develop our thinking, concepts, and logic but lose touch with our emotions. At the highest stage, our thinking is sufficiently processed and concretised, so our feelings return, fully developed, guiding us towards our goals through our experience of the emotional atmosphere. Ofri's account of how emotion can guide and misguide clinical decision-making, like Groopman's views on emotionally flawed judgement, could fit well into the distinct stages of intuition described by Larsson. We will next turn to the middle stage of Larssonian intuition, discursive logical reasoning.

## 6 The Limitations of Deduction in Clinical Reasoning

Both Groopman and Ofri retell clinical situations where formally correct, common-sense logic failed. Groopman tells the story of a paediatric cardiologist,

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43 Ofri, *What Doctors Feel* (2013): 43.

44 Ofri, *What Doctors Feel* (2013): 121.

45 Ofri, *What Doctors Feel* (2013): 93–94.

46 Ofri, *What Doctors Feel* (2013): 2.

who early in his career had used his deductive reasoning from principles to convince a national board on surgical guidelines that the decision to perform surgery should be based on the patient's blood oxygen levels. "Everyone believed me. It was an exercise in pure logic, an exercise that was, at some level, unassailable. [...] On the face of it, it was intellectually correct. It just happens to be wrong," the cardiologist told Groopman.<sup>47</sup> Another case concerned the treatment of children with heart deformities and deficiencies in the amount of blood being pumped. Although the physical laws of pressure were adequately applied, unpredictable factors in human physiology left the treated children in deteriorating health. In other words, the uncertainty of medicine beats deductive reasoning. Groopman quotes the American physician and mathematician David Eddy: "Uncertainty creeps into medical practice through every pore."<sup>48</sup>

On a similar note, Ofri reminisces about meeting a patient with diabetes shortly after finishing her internship. The patient had recovered from a life-threatening state called ketoacidosis with insulin treatment, but Ofri failed to prescribe long-acting insulin, without which the patient risked slipping back into ketoacidosis. Ofri's assessment was that the patient would be better off with short-acting insulin and controls every hour, rather than with stronger medication, because the patient's normal blood sugar levels had been restored. "My logic was indeed obvious. It was also wrong. Right-out-of-the-textbook wrong."<sup>49</sup>

Groopman explains how clinicians' thinking differs from students', for in medical school the students are required to conduct a linear analysis: "First, the chief complaint, here the shortness of breath. Second, the history of the present illness, angina having been ruled out. Third, the medical history, notably poor controlled hypertension. Fourth, the physical examination." Ironically, the same senior clinician who taught the students does not apply this stepwise reasoning when examining a patient. Groopman contrasts the mechanical kind of thinking of the seminar room with the "flesh-and-blood decision-making" of an experienced physician:

it is not evident that any "reasoning" is being used at all. Studies show that while it usually takes twenty to thirty minutes in a didactic exercise for the senior doctor and students to arrive at a working diagnosis, an expert clinician typically forms a notion of what is wrong with the patient within twenty seconds. [...] if I had asked [the physician] what was

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47 Groopman, *How Doctors Think* (2007): 147–148.

48 Groopman, *How Doctors Think* (2007): 151.

49 Ofri, *What Doctors Feel* (2013): 125.

going on in his head, he would have been hard-pressed to describe it. It simply happened too fast.<sup>50</sup>

Groopman encourages physicians to recognise the limitations of what they know and to convey this to patients, avoiding the traps of overconfidence or selectively looking for data that aligns with their opinion. There are always limits to our knowledge, because “every clinical event has a core of uncertainty. No outcome is ever completely predictable.”<sup>51</sup>

There are good arguments provided for exploring a Larssonian approach to intuition in clinical practice: emotions are valuable but can be misleading; logical reasoning is necessary but has its drawbacks. Interestingly, Groopman and Ofri agree that in clinical practice cognition and emotion are inseparable.<sup>52</sup> What, then, is the role of intuition in clinical judgement and medical decision-making?

## 7 The Formation of Clinical Intuition

Groopman understands intuition as first impressions formed in a flash and describes how it helps the physician form and evaluate a mental picture of the patient’s condition. These pictures are often already “framed” by the referring colleague’s opinion. Importantly, if this framing is wrong, the patient’s symptoms risk being systematically misunderstood. One way of discovering such errors is intuitive, which Groopman calls “the eyeball test”. This is the:

pivotal moment when a doctor identifies “something intangible yet unsettling in the patient’s presentation”. That instinct may, of course, be wrong. But it should not be ignored, because it can cause the physician to recognize that the information before him has been improperly “framed”.<sup>53</sup>

Groopman explains that such skills are necessary since the correct framing of a case can never be taken for granted. Indeed, this intuitive thinking could be interpreted as Larssonian intuition, as it allows the physician to synthesise information from their knowledge and experience to discover that the facts

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50 Groopman, *How Doctors Think* (2007): 34.

51 Groopman, *How Doctors Think* (2007): 113.

52 Ofri, *What Doctors Feel* (2013): 5.

53 Groopman, *How Doctors Think* (2007): 22.

do not add up to a satisfying judgement. In that way, the physician can see the entire picture and notice when some piece of information does not fit<sup>54</sup> – something that is coherent with Larssonian intuition. This comparison can be taken further. Pattern recognition, another term used by Groopman for intuitive thinking:

occurs within seconds, largely without any conscious analysis; it draws most heavily on the doctor's visual appraisal of the patient. And it does not occur by a linear, step-by-step combining of cues. The mind acts like a magnet, pulling in the cues from all directions.<sup>55</sup>

Groopman explains how a surgeon's decision to operate or not depends on pattern recognition: the patient's symptoms, clinical findings, and radiological results must form a coherent picture that justifies proceeding with the operation.<sup>56</sup> Although Groopman's analysis of clinical decisions owes much to Kahneman's and Tversky's research on heuristics and biases, he understands the power of intuitive pattern recognition in medicine not as the 'System 1' of dual process theory, but as the formation of Gestalt.

What is Gestalt? It has been described as a whole that cannot be reduced to its components.<sup>57</sup> Gestalt qualities, such as the preservation of relations when the parts change, are the foundation of non-positivist Gestalt psychology, which rose to prominence in the early twentieth century. Its advocates were interested in holistic phenomena such as melodies, which are larger than the sums of their parts.<sup>58</sup> Larsson, who taught psychology when it was still part of philosophy rather than an independent academic discipline of its own, recognised similarities between Gestalt psychology with his own intuition theory. Both were opposed to the associationist school of psychology and focussed on the human consciousness as a cohesive whole. In Larsson's neo-Kantian paradigm, recognition was dependent on an a priori unit of consciousness, and not just a mere consequence of mechanistic association.<sup>59</sup> Groopman's understanding of intuition is based on the notion of Gestalt, and he provides examples of how it works from different specialities. For instance,

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54 Groopman, *How Doctors Think* (2007): 146.

55 Groopman, *How Doctors Think* (2007): 34–35.

56 Groopman, *How Doctors Think* (2007): 167.

57 Matti, *Det intuitiva livet* (2000): 102–103.

58 Reidar Ekner, *Hans Larsson om poesi: En analys av hans estetik* (Stockholm: P. A. Norstedt & Söners Förlag 1962): 191.

59 Hans Larsson, *Den intellektuella åskådningens filosofi* (Stockholm: Albert Bonniers Förlag 1920): 22–25.

radiologists are expected to look at and analyze images very quickly. In fact, conclusions from first impression, or Gestalt, are supposed to be the mark of good training, much as “shooting from the hip” is prized among ER doctors. [...] And, indeed, many [radiologists] rely heavily on first impression – Gestalt – rapidly distinguishing normal from abnormal, drawing conclusions within seconds of viewing an image.<sup>60</sup>

Groopman highlights the problems of intuitive thinking, arguing that it is unreliable, biased by emotion, and superficial. Bias can lead to a physician’s pattern recognition being distorted. Groopman gives several examples of Gestalt judgements that have led even seasoned physicians into the wrong conclusions. Like the dual process theorists, he thinks that Gestalt judgements need to be complemented by analytical reasoning. Slow, stepwise analysis offers protection from “satisfaction of search”, since positive findings will not stop the progress of a systematic review in such analysis. However, Groopman explains how prolonging the time for judgement can also have its perils:

“if you look at a film too long, you increase the risk of hurting the patient.” After about thirty-eight seconds [...] many radiologists begin to “see things that are not there”. In essence, they generate false positives and begin to designate normal structures as abnormal.<sup>61</sup>

Larsson, too, describes how the power of a first impression successively weakens as the mind fatigues by maintaining the intuitive synthesis:

Have you noticed, when you want to observe something sharply, that you do not look at it for very long at one time, but lift your gaze from the object and glance back at short intervals? You see most clearly at first glimpse, in the very glance of the eye. [...] After you have seen it for a while you no longer have judgement, because naturally the synthesis has slackened.<sup>62</sup>

In sum, Groopman sees intuition as a complex guide to knowledge, one that should be bolstered by analytical reasoning, and requires experience to develop. Mature intuition depends on the ability to remember mistakes.<sup>63</sup> But is there

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60 Groopman, *How Doctors Think* (2007): 178–179.

61 Groopman, *How Doctors Think* (2007): 180–181.

62 Larsson, *Poesiens logik* (1899): 138.

63 Groopman, *How Doctors Think* (2007): 20.

not an insuperable divergence between Groopman's and Larsson's views on intuition? To Groopman, intuition needs to be complemented by analytical reasoning, while Larssonian intuition, on the contrary, claimed to supersede stepwise analysis, and be the most advanced human mental activity.

Interestingly, according to Larsson, intuition provides the necessary organic backdrop (or sculptural relief) to every systematic procedure. Larsson investigated the relationship between intuition and science, finding intuition to represent both the least and the most developed forms of thinking, and suggested this partly explained the controversy about intuition.<sup>64</sup> The kind of "going with one's gut" that Groopman warns against might be equalled with "low" Larssonian intuition, which means following one's first impulses and not giving reasons for an opinion.<sup>65</sup> Larsson addressed this common confusion about intuition: "is intuition the mind's very first fumbling guess or is it the conclusion, the flower of scientific thought? It is, I think, both one and the other, hence some of the contradictory opinions about it."<sup>66</sup>

Groopman's 'scandalous' claim that there is no specific clinical reasoning, can be defended by means of Larsson's intuitive *comprehensio aethetica*. Proper Larssonian intuition is the organic result of stepwise, systematic thinking, along with other principles of composition, rather than a sign of their absence. Clinical intuition in the Larssonian sense would require that relevant medical information, through intuitive synthesis, be formed into a coherent picture of concrete clinical choices, their practical outcomes, and emotional implications. A clinical picture with emotional implications – are we approaching 'the art of medicine'? For Larsson, science, art, and intuition are inherently connected.

## 8 Intuition as the Art of Medicine

The need for artistic capabilities in medicine is reflected in Groopman's statement that "creativity and imagination, rather than adherence to the obvious, are needed in situations where the data and clinical findings do not all fit neatly together."<sup>67</sup> Creativity in medicine is illustrated with an example from oncology, where there is a conflict between innovative and data-driven

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64 Larsson, *Intuition* (1892): 14–15.

65 Matti, *Det intuitiva livet* (2000): 162.

66 Larsson, *Intuition* (1892): 33.

67 Groopman, *How Doctors Think* (2007): 171.

practices. Some doctors are prepared to try unconventional remedies, while others refuse to consider a treatment not backed by empirical data. Clinging to statistics and protocols might appear rational, but it might also be a shortcoming, if fear of failure leaves the patient without treatment.<sup>68</sup> It is not just a question of matching symptoms with diagnosis, and diagnosis with treatment, but a much more complex judgement, as illustrated by an oncologist who talked to Groopman about terminally ill patients:

treatment can be most challenging: how to balance therapy with medications to control pain without so narcotizing a person that he is unaware of his surroundings and unable to communicate with loved ones; how to give words of comfort while speaking the truth, acknowledging that while the end is approaching, the person can still make a difference in the lives of others.<sup>69</sup>

Essential to the art of medicine, according to Groopman, is sensitivity to language and emotion, communication skills, and compassion: “most of what doctors do is talk, [...] and the communication piece is not separable from doing quality medicine.”<sup>70</sup> A physician must have emotional maturity to express a lack of medical certainty to patients, accept vulnerability, and acknowledge when more time is necessary to reach a wise decision. Sensitivity to language and interpretive competence are necessary not only in relation to patients, but also to colleagues. Words from referring doctors are cues that guide interpretation of the case, for better or worse. Even in radiology “attention to language” can “make perception and analysis better”.<sup>71</sup> Any clinician must know how to interpret the framing of patient histories and colleagues’ language, and recognise signs of biased judgement, which requires self-awareness. Groopman sums it up when thinking about quality in primary care, which he says requires “wielding one’s words with precision and with a profound appreciation of the social context of the patients.”<sup>72</sup> Proficient doctoring involves balancing a variety of clinical information while heeding how this very information might bias judgement:

The struggle is to find a middle ground, to be aware of the availability fallacy while recognizing that certain patterns may not conform to

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68 Groopman, *How Doctors Think* (2007): 258–259

69 Groopman, *How Doctors Think* (2007): 244.

70 Groopman, *How Doctors Think* (2007): 20.

71 Groopman, *How Doctors Think* (2007): 202.

72 Groopman, *How Doctors Think* (2007): 100.

the prototype; it is a matter of juggling seemingly contradictory bits of data simultaneously in one's mind and then seeking other information to make a decision, one way or another. This juggling, and this kind of decision-making, marks the expert physician – at the bedside or in a darkened radiology suite.<sup>73</sup>

Groopman's essay applies a biopsychosocial stance to medical practice, describing how, if doctors are to make the right decisions, they must understand patients' psychological needs and personal goals, including their social obligations and individual philosophies of life. Medicine is a "mix of science and soul".<sup>74</sup>

The physician and humanist Eric Cassell wrote that aesthetic judgements in medicine come down to determining the harmony between "the part" and "the whole" in the entity of the individual.<sup>75</sup> In the same vein, Larsson claims that intuition actualises "the part" with the emotionally relevant "whole".<sup>76</sup> True art, like qualified scientific understanding, is produced by intuitive synthesis. Scientific understanding will itself eventually develop into art.<sup>77</sup> He illustrates this with the example of the writer of fiction, who creatively uses profound psychological insights to write a novel containing both wisdom and aesthetic qualities to illustrate topics that cannot be expressed with scientific, discursive reasoning.<sup>78</sup> The aesthetic atmosphere which intuition brings to science can be crafted into poetry, which is then experienced through the reader's intuition. Larsson asserted that poetry, for example, can teach us in an intuitive way about profound subjects, in a way that stepwise reasoning cannot.<sup>79</sup> According to Larsson, ethics should not be treated like mathematical formulas, but like the carefully nuanced imaginability of art.<sup>80</sup> One form of poetry present in a clinical setting is the medical aphorism, with important clinical wisdom woven into metaphors such as "When you hear hoofbeats, don't think zebras" (see Table 10.1).<sup>81</sup>

If a poem can remind its reader of the emotional importance of a particular setting, perhaps lost during hard analytic work, then aesthetic stories could

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73 Groopman, *How Doctors Think* (2007): 196.

74 Groopman, *How Doctors Think* (2007): 259.

75 Eric Cassell, *The Nature of Suffering and the Goals of Medicine* (New York: Oxford University Press 2004): 192–193.

76 Larsson, *Poesiens logik* (1899): 146–147.

77 Larsson, *Intuition* (1892): 33.

78 Larsson, *Poesiens logik* (1899): 138.

79 Larsson, *Poesiens logik* (1899): 107–111.

80 Larsson, *Intuition* (1892): 59–60.

81 Montgomery, *How Doctors Think* (2006): 122.

TABLE 10.1 The various functions of medical aphorisms, with examples and effects.

Function	Example	Practice effect
To educate for narrative sensibility	<i>There should be no teaching without the patient for a text.</i> (Osler)	Understanding illness from the patient's perspective.
As an aide-memoire	<i>If you don't put your finger in it, you'll put your foot in it.</i> (Anon.)	Remembering to perform a rectal examination.
To inform clinical judgement	<i>It looks like this, but what else could it be?</i> (Croskerry)	Avoiding premature closure in diagnosis.
To reinforce professional behaviour	<i>Patients sue not when the patient gets angry with the doctor, but when the doctor gets angry with the patient.</i> (Krizek)	Maintaining composure even under difficult circumstances.
Site for identity construction	<i>There are three kinds of epidemiologists: those who can count and those who can't.</i> (Cowden)	Humour challenges arrogance to make a humane clinician.

SOURCE: DAVID LEVINE AND ALAN BLEAKLEY, "MAXIMISING MEDICINE THROUGH APHORISMS", *MEDICAL EDUCATION* 46 (2012), NO. 2: 153–162. ADAPTED WITH KIND PERMISSION OF THE AUTHORS

be reconstructive of identity and humanity. By capturing their *comprehensio aesthetica* in medical aphorisms, senior clinicians educate younger physicians about levels of medical practice that algorithms cannot.

Hillel Braude highlights that the subtle aspects of clinical reasoning may be compatible with Michael Polanyi's theory of "tacit knowing". Tacit knowing integrates embodied and subsidiary information, "functions at the periphery of attention and makes explicit knowledge possible. It is synonymous with practical intuition". As Braude favours an understanding of intuition as the art of medicine, he concludes that Polanyi's approach is also aligned with Alvan Feinstein's clinical epidemiology, a precursor to evidence-based medicine (EBM):

the inalienability of an intuitive element within clinical reasoning necessitates the attempt to render this subjective, personal, and tacit dimension of clinical reasoning explicit. Echoing, somewhat less poetically, the German Enlightenment philosopher Immanuel Kant, Feinstein writes

that “without intuition, imagination, or esthetics, the ‘scientist’ is a dullard. Without rationality, discipline, or logic, the ‘artist’ is a dawdler” [...]. Intuition here is analogous to Polanyi’s concept of intuition that links data from the subsidiary with the focal pole. By itself it is insufficient as explicit knowledge, yet it is an inherent part of the process of linking tacit with explicit understanding.<sup>82</sup>

Tacit knowing in clinical reasoning includes what Alvan Feinstein understood as clinical judgement, which depends “not on a knowledge of causes, mechanisms, or names for disease, but on a knowledge of patients”.<sup>83</sup> The modern tendency to privilege scientific principles over personal knowledge of individuals was already noted by Larsson: “If a Shakespeare were born today, he would wish he could write a psychology.”<sup>84</sup> The Enlightenment had dismissed the idea of intuition as mystical.<sup>85</sup> Larsson noted that such perceived mysticism might depend on our analytical reasoning not being able to survey the refined intuitive process. The “mystical” inference and aesthetic atmosphere depend on intuition grasping a wealth of conceptions beyond the reach of stepwise analysis. Although no guarantee of truth, an aesthetic atmosphere is a sign of solid knowledge and a hallmark of logical elaboration. As it integrates knowledge of patients into an aesthetic synthesis, clinical intuition can rightly be called the art of medicine.

## 9 Remedies for Medical Uncertainty

In 1967, Feinstein demonstrated how clinical medicine is a “basic” empirical science by structuring every medical act as a replicatory experiment, thereby clearly acknowledging the uncertainty of medical practice.<sup>86</sup> Groopman’s book describes human biology as substantially complex and variable, so that even the smallest, uncertain difference between people could have clinical significance – a circumstance reflected in the challenges physicians often face in interpreting medical numerical data. Cassell writes of the five ways physicians can reject uncertainty: overconfidence; denying a patient’s individuality;

82 Braude, *Intuition in Medicine* (2012): 122–124.

83 Braude, *Intuition in Medicine* (2012): 119.

84 Larsson, *Intuition* (1892): 12.

85 Braude, *Intuition in Medicine* (2012): 6.

86 Alvan Feinstein, *Clinical Judgment* (Baltimore: The Williams & Wilkins Company 1967).

redefining the clinical problem; diminishing the problem; and hoping the problem will solve itself.<sup>87</sup>

Groopman refers to the work of the sociologist Renée Fox and presents her three types of uncertainty in medical practice: one emanates from the limits of any physician's knowledge and skill; a second from what science has yet to discover; and a third from the problem of distinguishing between the first two. Interestingly, the denial of uncertainty is an adaptive psychological feature, because it makes action possible – for recognising the full extent of uncertainty would paralyse the physician. This point is illustrated by Groopman on a macro level, where different medical schools teach different treatment alternatives with the same dogmatic certainty. Although uncertainty is omnipresent in medicine, where each procedure can have multiple outcomes and only the probabilities of these outcomes are known, clinical decisions must be made.<sup>88</sup> They are often made under suboptimal conditions. Hence the importance of heuristics or mental shortcuts in thinking. Often, they are not logically valid. But Groopman writes that they are essential:

All [doctors] develop their hypotheses from a very incomplete body of information. To do this, doctors use shortcuts. These are called heuristics. [...] Heuristics flourish when a physician assesses unfamiliar patients, or when he must work quickly, or when his technological resources are limited. Shortcuts are the doctor's response to the uncertainty and demands of the situation.<sup>89</sup>

There is a long list of heuristics and their associated biases, based on the research by Kahneman and Tversky.<sup>90</sup> The “availability heuristic” means using the knowledge that first comes to mind; the “representativeness heuristic” is understanding something based on experience of a similar prototype; the “anchoring heuristic” means choosing one line of thought in the presence of many. This last heuristic can lead to “confirmation bias”, which means selecting data because it supports the hypothesis of choice. According to Groopman, in clinical judgement “being quick and shooting from the hip” indicates the

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87 Cassell, *The Nature of Suffering* (2004): 215–216.

88 Groopman, *How Doctors Think* (2007): 152–155.

89 Groopman, *How Doctors Think* (2007): 35.

90 Amos Tversky and Daniel Kahneman, “Judgment Under Uncertainty: Heuristics and Biases”, *Science* 185 (1974), no. 4157: 1124–1131.

use of anchoring and availability heuristics, and often “they are all a doctor needs to hit the mark, to make a correct diagnosis and recommend an effective therapy. But they also can veer wide of the mark.”<sup>91</sup> Groopman is critical of medical schools for not teaching heuristics, because physicians use them and should be aware of them.

This begs the question if heuristics are a form of intuition. In terms of the Larssonian concept of intuition, the answer is no. Intuition calls for organic syntheses of knowledge, employing several principles of composition at once, until form and content blend into a mature *comprehensio aesthetica*.<sup>92</sup> Heuristics are one specific way to structure knowledge, a *comprehensio logica*, comparable to chronologic, thematic, or systematic principles. What distinguishes heuristics from these other principles to structure knowledge, is that they are derived from the subject’s own previous learning experiences.<sup>93</sup>

Medical algorithms are arguably also examples of *comprehensio logica*, systematically structuring medical knowledge with probability estimates or schematic diagrams used to support medical decision-making in the face of uncertainty. With algorithms, clinical problems are solved by following the right lines in the algorithm, denoting for example ‘Pain’, ‘No fever’ or ‘Older than 10’ depending on the patient’s symptoms (see Figure 10.3).

In his book, Groopman listens to appreciative testimonies about the application of algorithms, especially in helping structure clinical data. Algorithms can illustrate why, on the basis of probability, a certain blood test is not called for, and help how that is put to the patient.<sup>94</sup> But Groopman also recalls speaking with an oncologist who regarded clinical algorithms as all too static – “Strictly speaking, it’s correct. But clinically speaking, it’s wrong.” – and claimed that algorithms do not account for important aspects of medical uncertainty: patients’ individual biology, psychology, and the specific course of their disease.<sup>95</sup> Situations arise when symptoms are confusing or too vague, or when there is no previous data available, making it difficult to apply algorithms. In those situations, it is crucial that doctors have learnt to think outside the tick box. Strictly applying algorithms in a medical interview might leave the physician with inadequate information, since filling in a template can divert

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91 Groopman, *How Doctors Think* (2007): 75.

92 Larsson, *Poesiens logik* (1899): 140–143, 146–147.

93 Larsson, *Logik* (1926): 74.

94 Groopman, *How Doctors Think* (2007): 89.

95 Groopman, *How Doctors Think* (2007): 238.

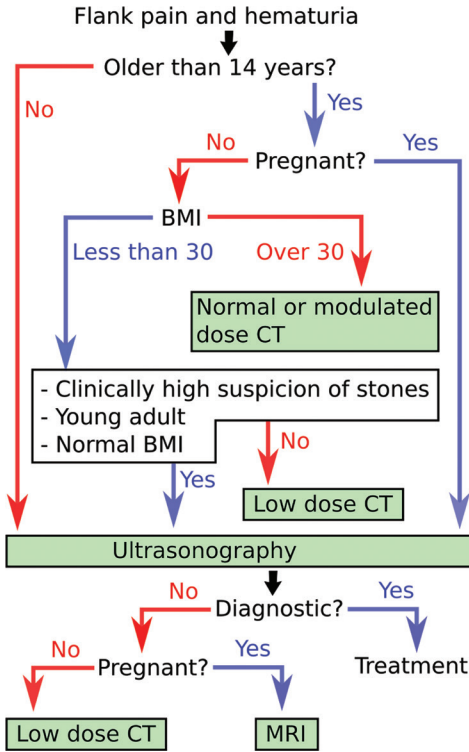


FIGURE 10.3  
 An algorithm for the diagnosis of kidney stone disease.  
 SOURCE: [HTTPS://COMMONS.WIKIMEDIA.ORG/WIKI/FILE:ALGORITHM\\_FOR\\_KIDNEY\\_STONE\\_DISEASE.PNG](https://commons.wikimedia.org/wiki/File:Algorithm_for_kidney_stone_disease.png) (ACCESSED ON 1.10.2024). IMAGE BY MIKAEL HÄGGSTRÖM, MD. PUBLIC DOMAIN (CC0 1.0)

physicians away from asking important open-ended questions.<sup>96</sup> Technology might detach the physician from the patient’s individual story.<sup>97</sup>

Ofri, too, describes many doctors’ discomfort at using algorithms instead of their own thinking, and thereby detaching themselves from responsibility and learning opportunities.<sup>98</sup> She points to the risk of not noticing the influence of emotion when using algorithms.<sup>99</sup>

According to Larsson, intuition can deal with factors of uncertainty, or *imponderabilia* (a term borrowed from the German statesman Bismarck), which stepwise reasoning cannot do.<sup>100</sup> Having all too abstract a concept or formula is to invite a logical error. Without enough concretion there is a risk of

96 Groopman, *How Doctors Think* (2007): 88.

97 Groopman, *How Doctors Think* (2007): 16.

98 Ofri, *What Doctors Feel* (2013): 131–132.

99 Ofri, *What Doctors Feel* (2013): 3.

100 Hans Larsson, *Idéer och makter* (1909): 72–74.

fallacy, Larsson informs us – a *quaternio terminorum* – as a confusion of words and concepts ensures the chain of reasoning is no longer valid.<sup>101</sup>

Medical algorithms are valuable vehicles of medicine's logic. If “knowing when you don't know requires sophisticated knowledge,” then the organic overview in a physician's intuition is an equally important contribution to managing medical uncertainty.<sup>102</sup>

Despite lacking a proper definition of intuition, Alvan Feinstein showed how physicians, by “dissecting” their intuitions, could develop clinical measurements based on variables selected by experienced judgement rather than statistical correlation alone:

The dissection of intuition to choose cogent manifestations is not always easy. In ordinary clinical practice, a clinician who says that a patient is improved seldom stipulates the particular observations that were used for the decision. When the stipulations are sought, the clinician may claim they are too intuitive to be specified. Nevertheless, when further prodded to provide the specifications, the clinician may finally dissect the intuition and note that it was based on changes in such variables as facial appearance, posture in bed, pain, ease of breathing, appetite, or pattern of conversation.<sup>103</sup>

The notion of dissecting intuition can, with Larsson's definition, be understood as analysing *comprehensio aesthetica* for better qualified *comprehensio logica* and reconnects to his prediction from 1908: “much of what is now only grasped by the clinical eye will one day belong to clinical science.”<sup>104</sup> From Feinstein's perspective on clinical medicine as a basic science, both the clinician's intuitive *comprehensio aesthetica* and the randomised controlled trial (RCT)'s *comprehensio logica* could be viewed as potential ‘controls’ for medical treatment as a replicatory experiment. Surely, clinicians must be able to dissect their intuitions to resolve conflicts between different intuitions about patients.

Ultimately, Groopman emphasises the importance of being honest with patients about medical uncertainty.<sup>105</sup> It is important to remember – and to communicate to patients – that intuition, discursive reasoning, and algorithms are all fallible.

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101 Larsson, *Intuition* (1892): 71.

102 Groopman, *How Doctors Think* (2007): 97.

103 Alvan Feinstein, *Clinimetrics* (New Haven: Yale University Press 1987): 51–52.

104 Hans Larsson, *Idéer och makter* (1908): 79.

105 Groopman, *How Doctors Think* (2007): 155.

## 10 Conclusion

This chapter set out to bring conceptual clarity to the nature of clinical intuition. Our analysis of contemporary medical essays, guided by Hans Larsson's theory of intuition, suggests that intuition is an integral part of clinical judgement and medical decision-making. The role of intuition in clinical reasoning seems meaningfully illustrated, structured, and problematised with Larsson's theory. In 'lower intuition', to apply Larsson's typology, emotion seems to introduce bias, but in 'higher intuition' it gives the clinician a valuable emotional compass, helping them to navigate the uncertainties of medicine. The issues with algorithms raised by Groopman and Ofri can be illustrated by comparing algorithms with *comprehensio logica*: algorithms lack the fullness, actuality, and individual perspective gained by intuition's *comprehensio aesthetica*. According to Larsson, *comprehensio aesthetica* provides the basis for holistic understanding; the ability to sense logical properties and emotional relevance simultaneously. Hans Larsson's concepts thus make it easier for intuition to be part of a scientific discourse. Following Larsson, one could theorise that if the art of medicine becomes lost on clinicians, it is because they engage only in the *comprehensio logica* of clinical reasoning. An "aesthetic atmosphere" about a case will signal that, with an intuitive synthesis, the physician has reached insight into the particularities of the clinical situation, since this atmosphere arises when details connect to the whole. This chapter suggests that the aesthetic atmosphere could be a sign of qualified medical knowledge and that the physician's whole personality is involved in his or her practice – an appealing approach for educating humanist doctors. It is not by introducing irrationality, but by logically synthesising an array of factors important to human life, that intuition will help physicians deal with medical uncertainty.

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# Afterword

Rolf Ahlzén

The contributions in this volume deal with the period of around 1850 up until the late twentieth century, a period of rapid transformation, not only in medical science and practice, but also economically and socially, with far-reaching consequences for the health of individuals. The rapid growth of population, the brisk industrialisation and urbanisation, with resulting poverty and an increase in social tension, as well as the rise of popular movements such as the workers' movement, the struggle for female emancipation, religious unrest, and large-scale migration – all this had far-reaching implications on medicine.

Parallel to this, medicine went through what may well be called 'a paradigm shift' – from a situation where several theoretical approaches existed side by side, to the gradual growth and the later full dominance of a medicine that was based on the world view of the natural sciences and its methodological ideals. As one possible symbolic starting point for this process, we may see Rudolf Virchow's work *Die Cellularpathologie* from 1858, which firmly anchored disease within the tissues, in their structure and function.<sup>1</sup> Diseases became material, something to be quantified and visualized under the microscope or, somewhat later, by X-ray.

The essays, by and large, focus either on how uncertainty in this period permeated certain sectors of medicine (such as the treatment of tuberculosis or gynaecological disorders), or on how such uncertainty was dealt with, for example the introduction of reforms within medical education and, particularly, by the incorporation of medical history into the curricula of medical education.

It must first be emphasized that the contributions span very different geographical and sociocultural settings. For example, we meet a judge in mid-nineteenth-century Turku who struggled with what probably, in the language of those days, was consumption, or in today's terminology, tuberculosis. It is both moving, sad, and illuminating to share his strong desire to understand and control the symptoms, which were extremely varied. His own uncertainty was most likely shared also by his doctors. At the time, around thirty years before Robert Koch's discovery of the tubercle bacterium, *Mycobacterium tuberculosis*, the disease was an enigma and several theories about its aetiology existed

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1 Rudolf Virchow, *Die Cellularpathologie* (Berlin: Verlag von August Hirschwald 1858).

side by side. Tuberculosis was the archetypal disease of the nineteenth century, even when competing with cholera and syphilis. The massive influence of tuberculosis on the minds of nineteenth- and early twentieth- century citizens is well illustrated by the rich number of literary and artistic depictions. The incomparable work in this genre is Thomas Mann's *The Magic Mountain*, a rich engagement with exactly the uncertainty of the time, both culturally and politically, as well as of course, medically.<sup>2</sup>

However, the bacterium was one thing, but a cure was a completely different scenario. In Virginia Langum's essay on health tourism to Madeira, the uncertainty about the aetiology of the disease leads to controversies concerning the alleged healing effects of the Madeiran climate. Mason, himself ill with the disease, exemplifies how a new spirit of doubt and scepticism is on its way. As a meteorologist, he questioned the assumption that the air of Madeira was drier than that of London. However, he was still anchored in the old paradigm of disease, where aetiology had to be found within the general pattern of climate (such as humid air) and human constitution. Mason called for more precision in the observations of climate, but could certainly not foresee the breakthrough less than half a century later concerning the aetiology of the disease. It is a somewhat ironic fact that after Koch's discovery, climate tourism still remained a cornerstone of tuberculosis treatment, though no longer to the balmy climes of Madeira, but rather to a sanatorium, often placed high up on mountains in areas where the air was supposed to be unsuitable for the growth of the bacterium.

If we turn to Evelina Wilson's essay on Judge Eneberg in Turku, who kept his diary during the years 1851–1852, the diagnosis was, as just mentioned, most likely consumption, or tuberculosis. His physicians struggled with the uncertainty of the time, at all levels – the aetiology, the diagnosis, the treatment, and the prognosis. One type of medication was tried after another, sadly with the knowledge that the chances of success were extremely low. Eneberg's meticulous attention to his own status was directed to what Wilson prefers to call “holistic factors”, such as diet, sleep, digestion and stools. Of course, calling this holism means that in the absence of knowledge about the immediate aetiology, all possible lifestyle factors that may be influenced are regarded as potential candidates. The uncertainty, one may perhaps say, leads to a ‘let us try all possibilities’-attitude. It is worth noting that this may be traced back to Hippocratic medicine, where dietetics meant exactly this – trying out all possible

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2 Thomas Mann, *The Magic Mountain* (London: Vintage Classics 1996, orig. 1924).

changes and strategies in a person's life in the hope of affecting the course of any disease.

One may wonder what Eneberg's physicians told him about his prognosis. They must have been aware that it was certainly gloomy. Did they tell him? Did they shatter his uncertainty and thereby also his hopes? Or did they, like the doctors in Lev Tolstoy's novel *The Death of Ivan Ilyich*<sup>3</sup> let him remain in ignorance about his hopeless prospects for recovery?

Wilson's observations are, following on from Karin Johannisson, that illness is formed by social and cultural factors in close interplay. This was obvious, and neither Eneberg nor his physicians could escape that. However, we must remember that the most influential factor behind the individual's subjective experience of symptoms ('illness') is the disease itself – that is the pathophysiological processes which give rise to the symptoms, followed by attempts at interpretation. In the case of tuberculosis, as in many diseases, these are extremely variable. The symptoms of Judge Eneberg seem to have been initiated from an almost obsessive attention to the functions of the body. Illness has, as Thomas Mann so eloquently shows in his great novel from the sanatorium, a capacity to create its own reality and, in doing so, almost completely envelops the incapacitated person.

More than forty years separate Judge Eneberg in Turku from the gynaecological operations described in Jolien Gijbels' essay. From the point of view of epistemic medical uncertainty, these years were almost revolutionary. Virchow's cellular pathology had been proven successful, bacteriology had made its fundamental breakthrough, narcosis was beginning to be understood, and soon Wilhelm Röntgen's enigmatic X-rays would lay the human interior open to the medical gaze. Gijbels' analysis shows that this in no way eradicated clinical uncertainty. Being able to characterize gynaecological diseases microscopically and knowing which bacteria were probably responsible for infections, still left open questions concerning, for example, the outcome of operations.

Gijbels' main theory is that it was actually uncertainty that drove some surgeons to try radical operations on women who had profound suffering from gynaecological disease. This is maybe not so surprising, for as long as there are no absolutely certain data on the outcome of operations, the field is open for those more 'daring' to push the limits. Only when statistics for both short- and long-term results are available, or at least are gradually developed, will radical procedures give way to more cautious surgery.

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3 Leo Tolstoy, *The Death of Ivan Ilyich* (Oxford: University Press 2015, orig. 1886).

This, however, does not eliminate all uncertainty. For instance, the aggregated data from large patient groups, which galvanised clinical trials throughout the twentieth century, would not necessarily be valid when considering the uniqueness of each individual patient. This is the population paradox as described in the introduction; the moral uncertainty remained, perhaps even more so. Would the patient consent to the recommended intervention? How much pressure should be put on a patient who rejects what is judged to be of great, even lifesaving, value for them? Hence, growing epistemic certainty does not necessarily mean diminishing moral uncertainty. It may even mean the opposite – that owing to more precision and more choice in surgical measures, the autonomous decision of the patient becomes more complex and harder to take. Gijbels' word for the process by which a decision is reached is "negotiation" between patient and physician – and indeed, this may cover some of the reality in such clinical encounters.

Several of the essays in this volume concern medical education, from around 1900 to the last decades of the twentieth century. In this context, it is of importance to find out in which way medical education, and in particular the teaching of medical history, is related to medical uncertainty.

Pieter Dhondt and Saara-Maija Kontturi begin their essay with the upsurge of interest in medical history around 1900. It is tempting to relate this to the uncertainty that the rapid transformation of clinical practice must have provoked. At first sight, why should knowledge about medical history in any way reduce an uncertainty that was due to new ideas about aetiology, diagnosis and treatment?

The authors trace several arguments which crop up in the debate over the role of medical history in a medical faculty, and they are issues which are easily recognizable in modern times. One is the assumption that some familiarity with the medicine of older times and other cultures invites humility. Understanding how uncertain medicine has been, will hopefully lead to the conclusion that today's medicine, however scientific it may be, is also subject to historical change, and hence uncertain. Another argument which emerges is that an exposure to personal accounts of illness that abound throughout the history of medicine, will compensate for the growing technical and impersonal character of clinical medicine. New medicine increasingly asked for analysis of the impact of interventions, and it was of course impossible for the advocates of medical history teaching to prove its value. This dilemma is strongly reminiscent of today's situation, where medical humanities are asked to prove their value in terms of a specified outcome, but have few possibilities of actually doing so.

That the position of medical history within the curricula of the medical faculty is subject to rapid changes becomes even more obvious in Sari Aalto's

essay. During the fifty years between 1930 and 1980, the subject had remarkable ups and downs in Finland, which may be traced to either the appearance or disappearance of influential advocates (like Harald Teir), or more general societal shifts (such as the turn to social sciences in the 1960s) or changing priorities of the teaching staff under the pressure of an ever-increasing amount of medical knowledge. This vulnerability also characterizes today's medical humanities, with small research and teaching centres, if any, and a fluctuating support from the educational leadership.

Aalto's essay raises questions about the possibilities of legitimising the presence of humanities in medical curricula. The arguments usually employed – such as inducing humility, offering a counterweight to the emphasis of the natural sciences, learning from the mistakes and the successes of earlier generations – may sound good enough in the eyes of those already convinced, but will probably carry little weight in an academic area where it takes quantified evidence to convince.

May the understanding of historical uncertainty in medicine facilitate the handling of the uncertainties of today? This is of course possible and, if so, it would probably mostly be normative uncertainty. The differences between today's Evidence Based Medicine and the medicine of, say, the early nineteenth century, are so fundamental that it may be justified to talk of two incommensurable paradigms. But the ethical challenges are definitely not of a fundamentally different sort. There are a number of dilemmas which have very similar characteristics over time, while of course in very different settings. It is not unreasonable to assume that such insights may facilitate within a medical student or an experienced physician a developing degree of humility.

In Petr Svobodný's rich account of the development of medical history in Czechia from the early nineteenth century, similar arguments for its role in medical education appear. During the period, particularly in the late nineteenth century, the possibility that such teaching would contribute to professional virtues was stressed. As in other parts of Central Europe, ethics, deontology and history overlapped and were seen as mutually dependent. It is also striking how much the general political and historical development, especially during the periods of occupation by totalitarian regimes, has influenced the place of medical history at the medical faculty. The more than forty years of communist rule led to the birth of a highly politicized view of history, including of course medical history.

Svobodný's conclusion towards the end of his essay, that voluntary courses in medical history during medical education can hardly be expected to mean much for the professional capacity of physicians, is unfortunately well founded. The cautiousness of medical faculties in both Europe and the US to make clear that the material in medical humanities (MH) is of equal importance as

biomedical knowledge, creates the view that MH is some kind of optional luxury that a few may choose for their pleasure. This misunderstanding has to be overcome.

One area where there is obviously still room for controversy is vaccination, in spite of the successful expansion of immunization to several diseases. Suvi Rytty's essay on vaccination scepticism around 1900 is instructive, and no reader will miss the obvious parallels to the 'antivaxxers' of the corona pandemic. It may seem somewhat ironic that the resistance against smallpox immunization came after almost a century of successful combat against this dreaded disease. But it coincided, as Rytty shows, with a general atmosphere of critiques of civilization, a profound worry about the direction in which western societies were developing, including scientific medicine. This 'back to nature'-movement was, in retrospect, often naïve and counterproductive, but the background was grim enough.

Dr. Lybeck, the lonely physician soldier in the war against vaccination in Finland, is described by Rytty as an ambiguous figure, with one foot in scientific medicine and the other in the old tradition of German romantic medicine – with hydrotherapy, herbal treatments, spiritual healing, and with a very prominent metaphysical framework. As Rytty also shows, the patience of the Finnish medical community was limited. When Lybeck went too far in his critique, he was seen as a heretic, as betraying the basic principles of the triumphant scientific medicine, and he was excommunicated.

Was Lybeck a sceptic in a medical community that did not acknowledge uncertainty? According to Rytty, this was hardly the case. Neither Lybeck nor today's antivaxxers are particularly interested in uncertainty. Their resistance seems to be founded exactly on a certainty about the dangers of 'unnatural' medicine, and the healing powers of natural remedies and spiritual sources. Truly acknowledging uncertainty in the case of vaccination depends on an insight in the balancing between pros and cons. This is the very essence of a humble scientific attitude in relation to clinical practice. And, as a matter of fact, few medical procedures come out with a better risk/benefit ratio than vaccination.

Clinical medicine offers its practitioners a peculiarly rich combination of practical and theoretical knowledge. Because of the complexity of many clinical decisions, uncertainty will remain a cornerstone of medical practice. It may be tempting to draw the conclusion that more analytic skills, more RCTs, and many more algorithms for clinical decision-making are the answer to this.

Måns Lindén and Jonathan Wistrand rely on Swedish late-nineteenth-century philosopher Hans Larsson when they reject such claims. Not that such tools would be useless. But they insist, in line with Larsson, that only by

bringing reason and emotion together and letting them enlighten clinical judgement will uncertainty be handled in a way that will benefit the ethically defined goals of medicine. They are aware of the dangers of an indiscriminate praise of intuition in clinical practice, but they insist that Larsson's concept of intuition may be a way of avoiding such risks.

Larsson was by no means alone in his time to argue for a reconciliation between art and science. The British physician John Coope, in his biography *Doctor Chekhov* from 1997, cites the physician and author:

I thought then that the sensitivity of the artist may equal the knowledge of the scientist. Both have the same object, nature, and perhaps in time it will be possible for them to link together in a great and marvellous force which is at present hard to imagine.<sup>4</sup>

This was written in the 1880s. Not only was Anton Chekhov a great author, but he was also a clear-sighted observer of the direction that the medicine of his time was taking.

If Hans Larsson's philosophical analysis bears some weight, and if we accept Groopman's and Ofri's view of the role of emotion in medicine, then this surely has consequences for how medical education is organized. The conclusion must be that not only should physicians be trained in analytic skills and EBM, but they must also in all possible ways be stimulated to develop those capacities, for they are virtues which may be favourable towards exercising phronesis or, as Larsson called it "comprehensio aethetica". There will of course not be a total consensus on how to do this, but during the last three to four decades so much has been learnt about this that lack of knowledge is not an excuse. One may even suggest that medical education, after the fundamental transformation of medical education during the years 1900–1930 in the direction of becoming a more natural, quantifiable science, is now ripe for a new transformation, where humanities and the arts find their self-evident role together with the sciences in the development of clinical judgement.

A cornerstone of clinical judgement is, of course, ethical reflection, and among the most pressing ethical dilemmas in modern medicine are those found in end-of-life treatment. The terminology here is a jungle, and on top of this are some technicalities which may not be so easy to grasp. There are strongly conflicting positions on these matters. The impression of the present

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4 John Coope, *Doctor Chekhov. A Study in Literature and Medicine* (London: Cross Publishing 1995): 7.

debate is that even if there are persons who are strongly in favour of and others who are strongly against giving physicians the right to deliberately end lives, there is also much moral uncertainty.

Taking a long leap in time brings us to the end of the twentieth century in Belgium. It must be remembered that in the 1980s and 1990s, the rather recent possibility of keeping persons with multi-organ failure alive had been accompanied by several ethical dilemmas. This debate is relevant for the analysis of uncertainty in medicine, as it is an illustrative example of how epistemic uncertainty (concerning diagnosis, prognosis, palliative possibilities, legal regulation) is intertwined with ethical uncertainty. The latter concerns fundamental questions like: What is the true wish of the patient and how much uncertainty should we accept? May this wish have changed since the advance directive was written, and is that ethically relevant? Is it ever ethically permissible for a physician to deliberately take the life of a seriously ill person? May there be a slippery slope if such actions are permitted and, if so, is it acceptable?

Niels De Nutte's essay also, as just noted, shows how difficult the terminology is in this area. This unintentionally adds one more layer of uncertainty to this ethical dilemma and the discussion about it. Concepts like active and passive euthanasia, (physician) assisted dying (suicide), MAiD (medical aid in dying) are used differently in different places. The demarcation between "withdrawal of life-sustaining treatment" and "euthanasia" is often overlooked. To exemplify, is there really an ethically relevant difference between turning off a respirator for a person who needs it to stay alive, and to administer an overdose to a patient, with death as the immediate result?

Medicine is inevitably socially, politically and culturally situated. There is no understanding of health issues in history, nor of the development of medical science, without this broad perspective. Rachel Irwin's essay on uncertainty in the teaching of global health reminds us of this. Its emphasis is on the contingency and the variability of knowledge, as a counterweight to allegedly value free medical science. She recommends three basic points of departure for global health teaching: to acknowledge complexity, to critically question given norms, and to not forget a focus on research methodology.

To be true to these three recommendations, we would need also to discuss their foundations. Is, for example, the so-called norm critique not also a normative endeavour that seldom critically analyses its own normative base? Is norm critique not just another name for a general discussion in society about different values and ethical principles, but when given this label, becomes the supposed prerogative of certain persons who have a particular (radical) insight? And are not the data that Gapminder presents hugely valid and of

great interest, even if they of course cannot capture all the aspects of “lived experience” and “power relations”?

Rachel Irwin’s contribution to this volume may initiate an important discussion on the development of the social sciences and history in relation to medicine, and the uncertainties over in what way to proceed. She points to what she considers to be blind spots in the understanding of global health issues, even though her essay presents few remedies.

### A Concluding Remark

History is no neutral little package to pick up at brief moments in medical education. It ought to be seen as a perspective that permeates many of the different fields of medical science and practice, and where the choice of perspective is neither neutral nor value free. And we must welcome discussions which are critical (in the sense of explorative and open) and respectful.

Even though the essays in this volume have a very different focus and differ in style and aim, it is obvious that they are connected by one ambition: to better understand the enigmatic phenomenon of medical uncertainty. As we tried to show in the introduction, there are many different kinds of uncertainty, and it is therefore necessary that different disciplines come together in an ambition to analyse it. The strength of history is its time perspective, the awareness of temporal relativity. There is an invitation for humility in this. On the other hand, a too heavy emphasis on historical relativity carries risks. The Popperian position that science is indeed proceeding towards a better, more truthful understanding of the world, but is still necessarily provisional and subject to revision – this may serve as the epistemic foundation for uncertainty in medicine.

Just as epistemic uncertainty is built into the very conditions of science, so ethical uncertainty is a fundamental condition of our moral universe. This does not necessarily mean that ethical values are totally relative and contingent. We may all have a different opinion of value ontology, but it is important to underline that even those who profess value realism usually agree that moral uncertainty is a fundamental characteristic of our existence. To acknowledge uncertainty in medicine is to also acknowledge our fallibility as human beings.

Medical science will make further progress. The discussion over ethical dilemmas connected to illness and disease will continue. This is an ongoing dialogue, at best performed, as Jürgen Habermas would express it, in an “ideal

speech situation”<sup>5</sup>, where persons participate on equal terms and rationally argue for their position. The fact that on a socio-political level we now seem to increasingly deviate from this ideal is deeply worrying.

This volume will hopefully provide both the knowledge and the inspiration to continue developing medical history, and it may also be of value for clinicians and others who want to better understand how we came here, and which way to proceed into the future.

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5 Jürgen Habermas, “Discourse Ethics: Notes on a Program of Philosophical Justification”, in: Idem, *Moral Consciousness and Communicative Action* (Cambridge: MIT Press 1990): 43–115.

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This book examines the history of medicine as a sub-discipline within the medical humanities and its possible contributions to dealing with medical uncertainty. It investigates how the history of medicine reduced intolerance for ambiguity among medical students in the past, and can continue to do so today. Using several case studies, the second part of this volume illustrates the long-term and varied nature of questions of uncertainty in the history of medical practice. Starting with concrete examples, it explores the extent to which physicians have openly discussed such issues or, alternatively, attempted to hide them under a cloak of expertise.

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