

Introduction

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Chapter 1

Introduction: Why Is Philosophy Relevant for Clinical Practice?



Rani Lill Anjum, Samantha Copeland, and Elena Rocca

1.1 Why Philosophy?

No practice takes place in a philosophical vacuum and medicine is no exception. Health sciences and healthcare practice are enabled, shaped and restricted by some tacit philosophical assumptions, of which practitioners should be aware. What, for instance, does it mean to say that clinical practice should be based on the best available evidence? What counts as the best evidence? And what is the most relevant evidence for the clinical encounter? Although the scientific evidence is itself largely empirical, many normative aspects of evidence based practice are not, as we will explain. In this sense medicine and health sciences, like all sciences, contain some non-empirical elements. These could be concepts, methods, tools, or what we call ‘basic implicit assumptions’ or *philosophical bias*. We define philosophical bias as

Basic Implicit Assumptions in Science about how the world is (ontology), what we can know about it (epistemology), or how science ought to be practiced (norms). (Andersen et al. 2019, p. 1)

They count as biases because they skew the development of hypotheses, the design of experiments, the evaluation of evidence and the interpretation of results in specific directions. How we think the world is (ontology) will be reflected in the way we study it (epistemology) and how we think that science ought to be practiced (norms). In medicine and healthcare, philosophical biases would typically influence

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choice of methods (e.g. the evidence hierarchy), norms of practice (e.g. standardised treatment) or scientific framework (e.g. the biomedical model).

In the CauseHealth project, *Causation, Complexity and Evidence in Health Sciences*, we wanted to show how philosophical assumptions motivate particular norms, methods and practices in medicine and healthcare. If we want to see a change in the way medicine and healthcare are practiced, we therefore cannot leave the philosophical foundation on which they are based untouched. Any competing practices will require different methods, norms and philosophical assumptions:

PHILOSOPHICAL ASSUMPTIONS → NORMS → METHODS → PRACTICE

For instance, we might want a healthcare system that acknowledges the patient as an integrative whole, where medical issues must be understood not only on the physiological level, but also within a biographical, social and cultural context. However, if the practice of medicine is premised on Descartes' mind-body divide (what is called *dualism*) then no such integration of the whole person can be achieved. It seems, then, that any genuine and permanent change in practice and methodology will have to be motivated by a change in how we think about the world on the most fundamental level. In the words of osteopath Stephen Tyreman:

...progress and development is not simply a matter of making new discoveries. It is a complex, multi-faceted process that involves good science, yes, but in the context of prevailing socio-cultural ideas and, most importantly, of an individual's world-view. (Tyreman 2018)

This book offers a guide for rethinking some of these more foundational assumptions, or *world-views*, within medicine and healthcare. Such a foundational rethink seems timely and warranted. Since the introduction of evidence based medicine in the 1990s, there has been an increasing interest in methodological, conceptual and ontological discussions among medical researchers, healthcare professionals and philosophers of medicine. There are emerging movements, such as *Person Centered Medicine and Practice*, the *Campaign for Real Evidence Based Medicine* and the *Critical Physiotherapy Network*, to mention only a few. The historian of science, Thomas Kuhn, saw it as a sign of a paradigm in crisis when its members start participating in philosophical discussions (Kuhn 1962). We should not, however, characterise what we see in medicine and healthcare as a scientific crisis so much as a crisis in the philosophy that grounds it (Anjum 2016; Eriksen et al. 2013), as we now go on to show.

1.2 Philosophical Debates in Medicine and Healthcare

A number of concerns have already been raised in the profession about how medicine is defined and practiced, especially when this affects the clinic. We now present briefly some of the debates that are most relevant for the context of this book: debates about medical models (ontology), scientific methodology (epistemology) and clinical practice.

1.2.1 Debating Models (Ontology)

Beyond the Biomedical Model. The biomedical model of health and illness assumes that all medical conditions should be explained as some physiological abnormality. Conditions lacking such biomedical explanation are then characterised as medically unexplained or psychosomatic (Wade and Halligan 2004). A criticism of this is that health complaints must be seen as more complex, containing biological, social and psychological elements. Even if it were desirable to separate the psychosocial causes of health from the ‘medical’ ones, it might not even be possible (Arnaudo 2017). The bio-psychosocial model proposed by Engel (1977) was thus an attempt to move beyond the biomedical model, though many argue that the biomedical model is still dominating the paradigm in healthcare, both in medicine and psychology (Engebretsen 2018; Engebretsen and Bjorbækmo 2019).

Fragmentation of Care. Although co- and multi-morbidity are the norm in the clinic, medicine and healthcare tend to be organised according to single diseases (Mercer et al. 2009; Parekh and Barton 2010; Vogt et al. 2014; Tómasdóttir et al. 2015). This specialisation of medical disciplines was brought about in order to enhance and deepen the specialists’ skills and expertise. On the other hand, healthcare has been criticised for becoming increasingly compartmentalised, organised into distinct and sometimes isolated ‘silos’. This means that patients with chronic and complex health complaints must go through the healthcare system by moving from specialisation to specialisation, treated as fragments, not as wholes (Kirkengen 2018).

Medicalisation of Life. In current healthcare there is the hope that a biomedical treatment, such as a drug, might ideally treat effectively even complex psychosocial phenomena (Ballard and Elston 2005). On the other hand, the expansion of the medical domain into most aspects of life, such as fertility, sexuality, sleeping patterns, angst, ageing and grief, has been criticised. Some are worried about placing experiences that all human beings are expected to have in the ‘healthy-unhealthy’ category. Ultimately, such a move suggests that it is imperative that we treat those experiences medically rather than accepting or living through them (Burgess 1993; Pilgrim and Bentall 1999; Moloney 2010).

1.2.2 Debating Methodology (Epistemology)

Information Gets Lost in Statistics. One ongoing debate is over what it means that clinical decisions should be evidence based. In evidence based medicine and practice, causally relevant evidence is taken to be statistical and population based, generated from large clinical studies. The aim is thus to ground the care of individuals in general knowledge about what is the most effective intervention in a studied

population (Sackett et al. 2000). Critical voices have raised concerns about the tension between the public health interest in equality of care and the clinical needs of individuals. While evidence based policy is widely informed about what happens elsewhere, the worry is that causally relevant information about the unique local context is disregarded or lost (Cartwright and Hardie 2012).

The Importance of Mechanistic Knowledge. In evidence based medicine and practice, randomised controlled trials (RCTs) are seen as the gold standard for establishing causality (Howick 2011). This is because, thanks to their experimental design, a well conducted RCT is the best way to isolate one causal factor from potentially confounding factors and see whether it makes a statistical difference in outcome. In contrast, some argue that causal relationships cannot be established without the use of unquantifiable factors such as the theoretical knowledge coming from the laboratory and clinical science (Charlton and Miles 1998). This is parallel to the ongoing debate in philosophy of medicine on whether statistical knowledge must be accompanied by a theory of causal mechanism for the purpose of establishing causality (Russo and Williamson 2007; Osimani 2013; Anjum and Mumford 2018).

A Call for Phenomenology. For ethical reasons, it is not possible to establish whether psychosocial factors causally affect health in a negative way using clinical experiments. For instance, one cannot test the causal impact of childhood trauma, abuse, grief, psychological stress or social stigmatisation using RCTs, the gold standard for establishing causal relationships. One way to overcome this problem is to substitute RCTs with other statistical methods, such as cohort studies or case-control studies. This is still within the framework of evidence based medicine and practice. Other approaches emphasise instead individual uniqueness and phenomenology, urging the profession to change its focus to the whole patient experiencing the condition (Loughlin et al. 2018, see also Engebretsen, Chap. 11, Broom, Chap. 14 and Kirkengen, Chap. 15, this book).

Limited External Validity. In the health sciences, like in many natural sciences, causality is studied through experimentation, within controlled and somewhat artificial settings. Because of the need to control for confounders, clinical trials use strict inclusion and exclusion criteria for recruiting the participants. On one side, such controlled conditions increase the reliability of the experimental results, and the confidence that the observed result is actually due to the tested intervention. At the same time, however, this limits the external validity of the studies. When facing chronically ill patients, older patients, pregnant women, or even children, it is therefore not obvious that the results from clinical studies apply directly in respect to dosage, efficacy or even safety (Rothwell 2005, 2006; Baylis and MacQuarrie 2016).

1.2.3 *Debating Practice*

Upgrading Clinical Judgement and Knowledge. One motivation for the introduction of evidence based medicine and practice was to ensure that patients got the best available treatment, independently of the experience or preference of their healthcare practitioner. Rather than depending entirely on clinical judgement and the authority of expertise, treatment should be given according to the best scientific evidence, preferably from RCTs and meta-studies. Of concern among healthcare practitioners is how this depreciation of clinical judgement affects the clinical encounter. In particular, when practitioners are encouraged to use guidelines and computational tools to diagnose and make decisions about treatment, this leaves less room for their own clinical expertise and knowledge of the particular patient at hand. A worry is that, in the process of decision making, data from other patients will weigh more than the evidence from the person seeking care (Greenhalgh 2018).

Efficiency at the Cost of Individual Needs. New Public Management is an increasingly popular global phenomenon that started in the late 70s, with the aim of improving efficiency of public services by making them more similar to businesses (Diefenbach 2009). The introduction of New Public Management has affected the way in which healthcare is financed, organised and executed (Simonet 2008; Wyller et al. 2013). Health service delivery is supposed to be time- and cost-efficient and resources are allocated according to generic standards, such as type of diagnosis. On the other hand, proponents of person centered healthcare worry about the current trend towards package solutions and standardisation of care. This approach often hinders the assessment of individual needs, they warn. An alternative management ideology for the health services, according to these critical voices, could be one where the suffering individual, and not societal needs, has priority in setting the course of care. Calls for action have been raised among medical professionals, urging that the New Public Management approach is leading to a decay in healthcare, rather than to an improved quality and efficiency (Wyller et al. 2013).

1.3 Aims and Overview of the Book

This book is intended as an intellectual resource for clinicians and healthcare professionals who are interested in digging deeper into the philosophical foundations of their daily practice. It is a tool for understanding some of the philosophical motivations and rationality behind the way medicine and healthcare are studied, evaluated and practiced, at the interface of science and the humanities. We will show how a change in the ontological foundation could motivate a paradigmatic change in

scientific methodology and clinical practice towards a genuine person centred approach, focusing on the whole person. In particular, this book illustrates the impact that our thinking about causality, both philosophically and conceptually, has on the clinical encounter.

By ‘clinical encounter’ we mean, in the broad sense, a consultation between the healthcare professional and the individual person seeking care. This is not limited to medical practice, but covers healthcare in general, including nursing, psychology, physical therapy, clinical pharmacy, rehabilitation, homecare services, as well as individual preventive care or any follow up of the patient. Although many of our examples come from medicine and general practice, the philosophical ideas should have a wider relevance also for these other parts of healthcare. If some of the philosophical biases that dominate current medical thinking actually limit the notion of evidence in a way that disadvantages the clinical encounter, then this needs to be critically discussed. Being able to identify the non-empirical foundation of scientific norms and practices is thus a first and necessary step for critically evaluating them.

In this book we want to prepare the ground for a genuine transdisciplinary discussion, not only between healthcare professionals and philosophers, but also one that expands to decision-makers and patients (Rocca et al. 2019). The main aim of this book is to engage and empower healthcare professionals to take part in changing and defining the premises for their own practice. After all, if clinical decisions should be based on evidence, this ought to be evidence that is relevant and well-suited for the clinic.

We have organised the book into two parts, *Philosophical Framework* and *Application to the Clinic*. The first part is written primarily from the philosophical perspective, by philosophers, and presents a singular overall framework. The second part is written primarily by clinicians who address some implications of the philosophical framework for different aspects of their own practice. The philosophical framework will thus be presented from different angles throughout the book, with more or less explicit focus on clinical practice. We hope that the diversity of voices, focus and perspective reflected in the chapters will contribute to make the philosophical ideas more accessible and relevant for practitioners with different professional backgrounds.

In the first part, we give an overview of the philosophical framework and themes of CauseHealth. In *Dispositions and the Unique Patient* we introduce the theory of dispositionalism and explain how this offers a better foundation for understanding causality in the individual case. In *Probability for the Clinical Encounter* we show how dispositionalism challenges the way we think about probabilities and propose an alternative – a singularist propensity theory – that we argue is better suited for the clinic. In *When a Cause Cannot be Found* we discuss how dispositionalism can throw some new light on medically unexplained symptoms, since this theory treats causal complexity, individual variations and medical uniqueness as essential features of causality rather than as problems for causality. Next, in *Complexity, Reductionism and the Biomedical Model*, we argue that a dispositionalist approach would deny any form of reductionism and render the biomedical understanding of

health and illness deeply problematic. Finally, in *The Guidelines Challenge*, we discuss the tension between clinical guidelines, based on general medical knowledge and aimed toward standardisation, and their use in the clinical encounter, based on local knowledge about the patient and aimed toward tailored interventions.

In Part II, eight practitioners and one patient from the CauseHealth network translate the philosophical ideas into a clinical setting. In their contributions, they show how philosophical reflections concerning foundational issues have influenced their own practice and how they understand and deal with health and illness. This part has nine chapters. *The Complexity of Persistent Pain – A Patient’s Perspective* is written by Christine Price who suffers from chronic pain. Price explains how she uses the dispositionalist framework to understand, model and manage her own chronic pain after she learned about this from her physiotherapist Matthew Low. Low is the author of *Above and Beyond Statistical Evidence. Why Stories Matter for Clinical Decisions and Shared Decision Making*. In this chapter he explains why patient narratives and dispositionalism are valuable resources for shared clinical decision making. In *Causality and Dispositionality in Medical Practice*, general physician and clinical pharmacologist Ivor Ralph Edwards discusses the tension between the need of a full phenomenological, dispositional and causal evaluation for making better diagnoses and the practical restrictions of the clinical reality.

Following up on these challenges, *Lessons on Causality from a Clinic for Patients with Severe Obesity* is written by senior consultant and general practitioner Kai Brynjar Hagen. Hagen describes how conversations dedicated to the first encounter with the patients allowed him to get closer to a causal diagnosis of their obesity, suggesting a causal therapy rather than a purely symptomatic one. Next, in *Reflections on the Clinician’s Role in the Clinical Encounter*, psychotherapist Karin Mohn Engebretsen illustrates how the clinician’s own personal and professional background influences the therapy in positive or negative ways and explains why clinicians ought to be conscious about what they bring with them to the clinical encounter. In *The Relevance of Dispositionalism for Psychotherapy and Psychotherapy Research*, psychologist Tobias Gustum Lindstad explores the influence of the evidence based framework on psychotherapy and proposes a dispositional revival of the profession. *Causal Dispositionalism and Evidence Based Healthcare*, written by physiotherapist Roger Kerry, discusses whether a new evidence based practice framework can be offered, one underpinned by a dispositional ontology, and reflects on how this would look. Next, *The Practice of Whole Person-Centred Healthcare*, by immunologist and psychotherapist Brian Broom, is an account of the emergence in New Zealand of a non-dualistic, whole person centred form of clinical practice, particularly in relation to the treatment of physical disease of all kinds. In *A Broken Child – A Diseased Woman*, general practitioner Anna Luise Kirkengen contrasts the personal biography of a patient, which is a history of violation, to her sickness histories as documented in the medical records. The chapter is a powerful reminder of why medicine and healthcare must be genuinely

person centred in order to obtain crucial information for understanding, diagnosing and treating patients.

In its totality, this book reinterprets what a genuine person centered approach should entail; from ontological foundation to norms of methodology and practice. This means that even those already educated within a person centered framework might have some of their preconceptions challenged by the dispositionalist theory presented here. We conclude the book by proposing a list of CauseHealth recommendations for a paradigmatic change in medicine and healthcare.

References and Further Readings

- Anjum RL (2016) Evidence-based or person-centered. An ontological debate. *Eur J Pers Cent Healthc* 4:421–429
- Anjum RL, Mumford S (2018) *Causation in science and the methods of scientific discovery*. Oxford University Press, Oxford
- Andersen F, Anjum RL, Rocca E (2019) Philosophical BIAS is the one bias that science cannot avoid. *eLife* 8:e44929. <https://doi.org/10.7554/eLife.44929>
- Arnaudo E (2017) Pain and dualism: which dualism? *J Eval Clin Pract* 23:1081–1086
- Ballard K, Elston MA (2005) Medicalisation: a multi-dimensional concept. *Soc Theory Health* 3:228–241
- Baylis F, MacQuarrie R (2016) Why physicians and women should want pregnant women included in clinical trials. In: Baylis F, Ballantyne A (eds) *Clinical research involving pregnant women*. Springer, Cham
- Burgess M (1993) The medicalization of dying. *J Med Philos* 18:269–280
- Cartwright N, Hardie J (2012) *Evidence-based policy. A guide to do it better*. Oxford University Press, Oxford
- Charlton BG, Miles A (1998) The rise and fall of EBM. *Q J Med* 91:371–374
- Diefenbach T (2009) New public management in public sector organizations: the dark sides of managerialistic ‘enlightenment’. *Pub Adm* 87:892–909
- Engebretsen KM (2018) Suffering without a medical diagnosis. A critical view on the biomedical attitudes towards persons suffering from burnout and the implications for medical care. *J Eval Clin Pract* 24:1150–1157
- Engebretsen KM, Bjorbaekmo WS (2019) Burned out or “just” depressed? An existential phenomenological exploration of burnout. *J Eval Clin Pract*. <https://doi.org/10.1111/jep.13288>
- Engel GM (1977) The need for a new biomedical model: a challenge for biomedicine. *Science* 196:129–136
- Eriksen TE, Kerry R, Lie SAN et al (2013) At the borders of medical reasoning – aetiological and ontological challenges of medically unexplained symptoms. *Philos Ethics Humanit Med* 8:1747–1753
- Greenhalgh T (2018) Of lamp posts, keys, and fabled drunkards: a perspectival tale of 4 guidelines. *J Eval Clin Pract* 24:1132–1138
- Howick J (2011) *The philosophy of evidence-based medicine*. BMJ Books/Wiley-Blackwell, Oxford
- Kirkengen AL (2018) From wholes to fragments to wholes—what gets lost in translation? *J Eval Clin Pract* 24:1145–1149
- Kuhn T (1962) *The structure of scientific revolutions*. University of Chicago Press, Chicago
- Loughlin M, Mercuri M, Parvan A et al (2018) Treating real people: science and humanity. *J Eval Clin Pract* 24:919–929
- Mercer SW, Smith SM, Wyke S et al (2009) Multimorbidity in primary care: developing the research agenda. *Fam Pract* 26:79–80

- Moloney P (2010) 'How can a chord be weird if it expresses your soul?' Some critical reflections on the diagnosis of Aspergers syndrome. *Disabil Soc* 25:135–148
- Osimani B (2013) Until RCT proven? On the asymmetry of evidence requirements for risk assessment. *J Eval Clin Pract* 19:454–462
- Parekh AK, Barton MB (2010) The challenge of multiple comorbidity for the US health care system. *J Am Med Assoc* 303:1303–1304
- Pilgrim D, Bentall R (1999) The medicalisation of misery: a critical realist analysis of the concept of depression. *J Ment Health* 8:261–274
- Rocca E, Copeland S, Edwards IR (2019) Pharmacovigilance as scientific discovery: an argument for trans-disciplinarity. *Drug Saf*. <https://doi.org/10.1007/s40264-019-00826-1>
- Rothwell PM (2005) External validity of randomised controlled trials: “to whom do the results of this trial apply?”. *Lancet* 365:82–93
- Rothwell PM (2006) Factors that can affect the external validity of randomised controlled trials. *PLoS Clin Trials*. <https://doi.org/10.1371/journal.pctr.0010009>
- Russo F, Williamson J (2007) Interpreting causality in the health sciences. *Int Stud Philos Sci* 21:157–170
- Sackett DL, Straus SE, Richardson WS et al (2000) Evidence-based medicine: how to practice and teach EBM, 2nd edn. Churchill Livingstone, Edinburgh
- Simonet D (2008) The new public management theory and European health-care reforms. *Can Public Adm* 51:617–635
- Tómasdóttir MO, Sigurdsson JA, Petursson H et al (2015) Self reported childhood difficulties, adult multimorbidity and allostatic load. A cross-sectional analysis of the Norwegian HUNT study. *PLoS One* 10:e0130591
- Tyreman S (2018) Evidence, alternative facts and narrative: a personal reflection on person centred care and the role of stories in healthcare. *Int J Osteopath Med* 28:1–3
- Vogt H, Ulvestad E, Eriksen TE et al (2014) Getting personal: can systems medicine integrate scientific and humanistic conceptions of the patient? *J Eval Clin Pract* 20:942–952
- Wade DT, Halligan PW (2004) Do biomedical models of illness make for good healthcare systems? *BMJ* 329:1398
- Wyller VB, Gisvold SE, Hagen E et al (2013) Reclaim the profession! *Tidsskr Nor Legeforen* 133:655–659

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