Biomedical, Biopsychosocial, and Beyond

Juliette Ferry-Danini

Forthcoming in the *Oxford Handbook of Philosophy of Medicine* (direction Alex Broadbent)

Introduction

Since Engel' famous description of, and attack on, "the biomedical model", there has been considerable interest in developing alternative ways of thinking about and doing medicine that address some of its ills. Engel himself proposed a "biopsychosocial model", which seeks to combine psychological and social facts with the biological facts already prominent in medicine to understand disease and its treatment. The model has now become more or less commonplace in the medical landscape, although it is subjected to its own criticisms. Defining biomedicine as a model to criticise and improve from has in fact a long tradition prior to Engel's work, a tradition that is often forgotten. This chapter explores the past and future of criticising biomedicine, notably the biopsychosocial model, but also the recent revival of medical humanism that have followed in its path. Much like the "biopsychosocial" model, a "humanistic" model may sound attractive, but it could also prove to have its own drawbacks.

Keywords: Biomedicine – biomedical model – biopsychosocial model – humanism

Biomedicine: a critical construction

The "biomedical" or "biomedicine" is a deceptively simple object of inquiry, far from just referring to the alliance of biological and medical disciplines. The word was originally coined to refer to the scientific work done on radioactive materials between the two World Wars (Lenoir and Hays 2000 and Keating and Cambrosio 2004 cited by Löwy 2011: 49–55). It was then progressively used to refer to scientific medicine in Western countries from the end of the World War II onwards and to the various theoretical frameworks or philosophical commitments thought to characterise it. As Sean Valles has recently put it, "It is a framework, a set of philosophical commitments, a global institution woven in Western culture and its power dynamics, and more" (Valles 2020). It is taken to mean alternatively "scientific medicine", "naturalism", "reductionism" or sometimes even "cartesianism". Sometimes, it is

used to refer to naturalistic definitions of health and disease. “Biomedicine” is perhaps more easily understood as what Andrew Hogan has called a “discursively constructed critique” (Hogan 2019, 243) or “critical construction” (2019, 267): “biomedicine” progressively became a shorthand for the target of critiques scholars from various disciplines have darted at medicine. Commenting on this situation, some have argued that biomedicine is sometimes used as a straw man within such discussions (Ferry-Danini 2018, 58). Sociologists Mike Kelly and David Field have remarked that “[o]n close examination it is actually very hard to find this medical model in medical practice” (Kelly and Field 1994, 35 cited by Hogan 2019, 246). Meanwhile Hogan insists that we should not lose sight of the fact “that physicians have almost never defended, or sought to own, the medical model” (Hogan 2019, 267).

The situation is indeed complicated in so far as there isn’t necessarily anyone defending such a thing as “biomedicine” or the “biomedical model”. “Biomedicine” in fact may not be describing a uniformed reality within Western medicine. Not all countries in the Western world rely on the same health system, the same drugs and the same beliefs about disease and illness. Among the numerous critiques of biomedicine, some have focused on the shortcoming of medicine as an institution, some other have focused on the shortcomings of its philosophical or scientific commitments. Other chapters within this handbook cover some of these approaches: the chapter ‘Alternatives and Medicines’ (Klemens) tackles alternative medicine; and ‘Medicine: Better and Better?’ (Jukola) tackles the criticisms voiced against Western medicine’s current experimental practices. Criticising biomedicine may lead positions in very different directions that may not necessarily be compatible with one another; this is because “biomedicine” is both a cultural phenomenon, a construct of history and much more. Before turning to the different types of influential approaches that have argued against or departed from biomedicine – the biopsychosocial approach and the recent revival of medical humanism – it is interesting to look at the long tradition of spelling out biomedicine as a critical construction. This tradition took roots in and out of the philosophy of medicine.

Resisting biomedicine: a long multidisciplinary tradition

The origin of biomedicine as a critical construction can be traced back before the word “biomedicine” was coined, in the late nineteenth century, precisely when medicine started to change and increasingly rely on laboratory sciences. Resistance to medicine’s scientific turn

initially came from the medical profession itself. The reliance of medicine on experimental knowledge made some physicians turn to other academic disciplines – the humanities – in the hope of avoiding what they felt was like a diminished version of medicine. Some believed and hoped interdisciplinarity would bring back "humanism" within medical practice. Often, history was seen as the key discipline to address the limits of biomedicine. Richard Warner has studied the emergence of this call for more humanism in medicine in the context of academic history (Warner 2011). He notes the following:

> What has persisted across time is the way that the idea of history as a humanising force has almost always functioned as a discourse of deficiency in response to perceived shortcomings of biomedicine, medical institutions and medical professionalism. (Warner 2011, 91)

Warner mostly covers the American context, but he also mentions European roots. For instance, in 1889, Theodor Puschmann, a professor of history of medicine in Vienna, was calling for a "a rehumanisation of the physician in an age of scientistic ideals" (Puschmann, 1889; Warner, 2011, 92); Puschmann wrote that history of medicine should teach future physicians to undone their "superficial materialism". At the end of the 19th century in the United States, the idea of clinical medicine as an art was pushed forward to resist experimental medicine. This critique of science was sometimes radical. For instance, one physician in Philadelphia argued that

> There is an art of medicine [that] completely eludes, or flatly contradicts science, by means of empirical facts, and gives the palm to sagacity and common sense over laws formulated by experiment. (Stillé 1884, 435)

This humanistic movement did not find its roots in the works of historians or philosophers, but in the words of physicians themselves, cultivating, in the words of Warner, a "gentleman-physician" ideal (Warner 2011, 92). Warner describes this movement as elitist, very homogenous professionally, having a special interest in books and being exclusively male (Warner 2011, 93).[1] The movement led to the creation of history of medicine professorships in medical faculties in the United States, with the ambition to integrate history of medicine in the medical curriculum.[2] According to one of the architect of medical school pedagogy,

[1] This description is striking when one look at medical humanities or philosophy of medicine today, where the authors are more diverse.

[2] By comparison, the same ambition to integrate history of sciences in French medical universities in France is much more recent and dates back to the official report written by Dominique Lecourt in 1999 to the

Abraham Flexner, cited by Warner (2011, 93), "we can become so infatuated with progress in knowledge and control that we lose our perspective, lose the sense of relative cultural values", and then we leave young doctors "culturally thin and metallic" (Flexner 1930, 96). History of medicine was seen as a good way to fight what was seen as a problematic scientific culture.

It was around the same time that the concept of care sparked interest among the profession. Often mentioned, "The care of the patient" was published in 1927 in the *Journal of the American Medical Association* (*JAMA).* Peabody wrote the paper after giving a series of talks at the attention of Harvard Medical School's students. At the beginning of this paper, he identified "scientific medicine" as having led medicine into a state of crisis:

> The most common criticism made at present by older practitioners is that young graduates have been taught a great deal about the mechanism of disease, but very little about the practice of medicine or, to put it more bluntly, they are too 'scientific' and do not know how to take care of patients. (Peabody 1927, 877)

This humanistic ambition was not freed from political influence. Warner argues that this trend was not just a theoretical movement: it was connected to deep political tensions at the heart of the medical profession in the United States. Warner argues that this ideal of the humanistic and literary gentleman physician has been used by conservative medical associations (notably the *American Medical Association*) to push back against any kind of social reforms of medicine in the country in the 1940s. The idealised physician that was put forward was a physician full of compassion and empathy. According to Warner, the *AMA* circulated millions of copies of the painting *The doctor* by Luke Fildness (1891) – where a doctor can be seen contemplating his patient state at the bedside – with the caption "Keep politics out of this picture" during its campaign against national health insurance (2011, 94). According to Warner, "this was not history, but a romanticised, wishful image of humanistic medicine that served the AMA in battling what it denounced as 'socialized medicine'" (2011, 94).

Beyond this ideological use of history, several European medical physicians-historians were in fact working to turn attention to the building of health systems and social

government (Lecourt 1999). Yet, many philosophy and "medical humanities" courses in French medical faculty are in fact given by physicians themselves.

determinants of health. Swiss Henry E. Sigerist was one of these physician-historians, working on the socio-economic determinants of health. In 1941, Sigerist was defining health in the following terms:

> Like the Romans and like John Locke, we think of health as a physical and mental condition. *Mens sana in corpore sano* remains our slogan. But we may go one step further and consider health in a social sense also. A healthy individual is a man who is well balanced bodily and mentally, and well adjusted to his physical and social environment. He is in full control of his physical and mental faculties, can adapt to environmental changes, so long as they do not exceed normal limits; and contributes to the welfare of society according to his ability. Health is, therefore, not simply the absence of disease: it is something positive, a joyful attitude toward life, and a cheerful acceptance of the responsibilities that life puts upon the individual. (Sigerist 1941, 100)

A few years later, the constitution of the World Health Organisation would define the concept of health very similarly:

> Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. (WHO 1948)

René Sand, the Belgian who headed the group at the origin of the draft of the constitution of the WHO, was also a proponent of social medicine (Sand 1934), well acquainted with Sigerist's work. In post-World War II industralised countries, national health insurance systems started to get implemented. The exception was and remains the United States. As Warner notes, the social medicine trend was weaker in the USA compared to Europe. He notes that Sigerist, in a private letter to a colleague, expressed worry that his editor would find his work too "red" for having mentioned the working class several times (cited by Warner 2011, 94). Irwin and Scali have argued that the Cold War context has prevented the WHO to follow on its original social foundation, as the influence of the United States on the organisation grew stronger. The organisation turned to favour more technology-based campaigns, rather than approaches focused on social determinants of health:

> US officials were reluctant during the 1950s to emphasise a social model of health whose perceived ideological implications were unwelcome in the Cold War setting. (Irwin and Scali 2007, 237)

This post-World War II period was also an important moment in the history of medicine – or biomedicine: most notably, pharmacy became increasingly industrialised and grew quickly, together with the increasing consumption of newly developed drugs. Ilana Löwy have

noted that together with this "overlapping" (Löwy 2011, 120) of the biological, medical, and clinical, historians have increasingly started studying this phenomenon as a "biomedicalization" process within "biomedicine studies" (2011, 119–20) from the 1970s onwards. One first thing to note is that there is a tension between a holistic definition of health (such as the one suggested by the WHO) and the concern for the medicalisation of society. The more is included in our definition of health, the more we bring under the influence of medicine's power. Furthermore, depending on what we take "biomedicine" to mean, medical change in the second half of the 20th century could be interpreted differently. The slow turn to clinical epidemiology and what would become evidence-based medicine from the 1960s onwards could very well be seen as a turn away from biomedicine. This is for instance what Robert Fletcher – one of the proponents of clinical epidemiology movement with Suzanne Fletcher – commented about this period in an interview with Jeanne Daly, on the birth of evidence-based medicine:

> We grew up in a very biomedical era. We were trained at Stanford in internship and residency, where everyone was a laboratory scientist, and it seemed to me that the kind of science that they brought to bear on patient care, which was mainly logical argument from laboratory data on mechanisms of disease, just wasn't the best possible way of answering these clinical questions. (Robert Fletcher, in an interview with Daly 2005, 21)

Once again, we are confronted with the elusive nature of the concept of "biomedicine" and the ambiguity of its definition. In the 1970s, another type of critique of biomedicine crystallised in a way that was reminiscent of the social and holistic inspirations that led to the WHO: the biopsychosocial approach. This is what the next section covers.

Beyond biomedicine: the biopsychosocial

A series of papers published in the 1970s by George Engel - a professor of medicine trained in psychoanalysis – solidified biomedicine as a critical construction: "The need for a new medical model: a challenge for biomedicine" (1977) in *Science* and "The Clinical Application of the Biopsychosocial Model" (1981) in *The Journal of Medicine and Philosophy.* These papers offered a catchphrase to symbolise this rejection of biomedicine: the biopsychosocial. The

concept had already been around since the 1950s but took hold with the work of Engel[3]. The success of his 1977's paper went way beyond philosophy and is nowadays regularly if not systematically cited by medical scientists – for instance by psychiatrists or public health scientists – and philosophers alike to distance themselves to a perceived insufficient or reductionist "model" of medicine. The term "medical model" was, however, coined before Engel's papers, in 1956, by Thomas Szasz, one of the leading psychiatrists within the anti-psychiatry movement[4]. As we will see, Engel was indeed directly engaging with this debate. Although, Engel's papers crystallised biomedicine and the "biomedical model" as a critical construction for both scientists, philosophers, and the humanities, what to do with this legacy remains unclear, most notably because the definitions of biomedicine and the biopsychosocial model remain, as we shall see, ambiguous.

Antipsychiatry, biomedicine and the birth of the philosophy of medicine

In his 1956 paper, Szasz had used "medical model" (1956, 303) to refer to the idea that in "organic medicine" (1956, 303), we can all agree on distinguishing between health and disease, "normal" and "abnormal" functions (1956, 303). By contrast, according to Szasz, there is no such consensus for mental illness such that we cannot distinguish between healthy or unhealthy mental states. "Model" does not take a specific meaning here, other than the ability to distinguish between health and disease. Szasz will then go on to argue in *The Myth of Mental Illness* (1961) that there are no such thing as mental illnesses, and the concept of mental illness merely tries to make "more palatable" moral conflicts in human relation (Szasz 1960, 118). His premise for this argument was similar:

> In the case of physical illness, the norm is the structural and functional integrity of the human body. Thus, although the desirability of physical health, as such, is an ethical value, what health is can be stated in anatomical and physiological terms. (Szasz 1960, 114)

The second premise for his argument was that mental phenomena are distinct from corporal functions. Szasz concluded that mental illness was thus impossible and nonsensical. This line of argumentation will soon give rise to a renewed philosophical discussion on health, disease,

[3] According to S. Nassir Ghaemi it was coined by Roy Grinker in 1954. Grinker was a student of Franz Alexander, himself a student of Freud (Ghaemi 2009, 3).
[4] According to Hogan (2019, 246–47).

and biomedicine. Arguably, it even gave birth to both the philosophy of medicine and the philosophy of biomedicine.

This antipsychiatry discussion indeed stemmed into different directions. One direction was that of the philosophy of biomedicine, in the path of the papers published by Engel. Another direction was that of the philosophy of medicine, in the path of the work of Christopher Boorse. Indeed, around the same time Engel was publishing "The need for a new medical model" (1977), Boorse was publishing "On the distinction between disease and illness" (1975) and "Health as a theoretical concept" (1977), starting a long conceptual analysis debate about the definition of health and disease in philosophy. This debate, in turn, helped cement the philosophical field and get independence from the medical ethics field. Both series of papers by Engel and Boorse stemmed from a reaction to the antipsychiatry literature and were motivated by this debate. Engel opened his 1977 on the antipsychiatry crisis, commenting on the state of disarray of psychiatry, and the hope psychiatrists seemed to be placing in medicine "neat and tidy" grounds (1977, 129). Boorse also opened his 1975 paper on the antipsychiatry debate, noting that it is "impeded (…) by a fundamental misunderstanding of the concept of health" (Boorse 1975, 49). He further motivated his later attempt to define health with the goal of clarifying what he considered a "morass of mental-health controversies" (1977, 543). However, both discussions evolved within different academic circles. Engel did not refer to Boorse's papers, while Boorse only mentioned in passing an older paper from Engel. Although the discussions tackled what appears to be intersecting questions, they ultimately led to different debates, a split that remains to this day. How different exactly were these discussions?

Szasz's argument rested on the premise that disease is defined as a corporal dysfunction (Szasz 1960, 114). It is this premise that caught the attention of both Engel and Boorse: can we really define disease as a corporal dysfunction? They interpreted the question differently. Boorse agreed with Szasz that it is indeed possible to define physical disease as a biological dysfunction and used conceptual analysis to propose one definition, going further than what Szasz had only pointed to:

> (…) with Szasz and Flew, I shall assume that the idea of health ought to be analysed by reference to physiological medicine alone[5]. (Boorse 1975, 49)

Boorse's proposed definitions of health and disease in that paper (1975) will start a long-lasting philosophical debate on the definition of health and disease, turning into an opposition between naturalism – Boorse's position, and normativism's – according to which it is not possible to define disease or health in a purely naturalistic way. Part VI of this handbook covers in more details some of the questions this familiar debate has led to.

By contrast, what path did Engel take? In the opening of his 1977's paper, Engel acknowledged that medicine seemed tidy compared to psychiatry. As he puts it, it is based in the biological sciences, has many technological resources, a record of achievement in the understanding of mechanisms of disease, and in devising new treatments (Engel 1977, 129). In brief, medicine appears to be much more successful than psychiatry and as such could act as a possible role model for the latter:

> It would seem that psychiatry would do well to emulate its sister medical disciplines by finally embracing once for all the medical model of disease. (1977, 129)

However, Engel did not accept "such a premise" (1977, 129). His main thesis is that medicine *was* in fact undergoing the same crisis as psychiatry. The fault and cause of this crisis? The adherence to "a model of disease no longer adequate for the scientific tasks and social responsibilities of either medicine or psychiatry" (1977, 129). Engel concluded that psychiatry should probably not rush to embrace such a flawed model. But what exactly is this model? This is where things get a bit tricky. Engel adds that

> [m]edicine's crisis stems from the logical inference that since "disease" is defined in terms of somatic parameters, physicians need not be concerned with psychosocial issues which lay outside medicine's responsibility and authority. (129)

Does it mean Engel reject such a definition of disease or merely that logical inference? Engel's goal in this paper was not to pursue conceptual analysis like Boorse or to provide a new

[5] Antony Flew was an analytic philosopher who published in 1973 *Crime or disease* where he investigated the link between crimes and mental illnesses. Flew was concerned about the application of the concept of mental illnesses to behaviours leading to crimes to "excuse" them. To do so, he proposed a definition of disease using conceptual analysis (Flew 1973).

definition of health and disease. What Engel argued for was not to include normative values into the definition of disease either – as will critiques of Boorse's naturalistic definition of disease will do. Today's philosophy of psychiatry still argues on whether psychiatry should follow the "medical model". The medical model in that discussion refers to a view about the causes of mental illnesses as dysfunctions in the brain, with different interpretations of that view (see Murphy 2020). This is not exactly and solely what Engel had in mind either. Even though Engel's paper has been cited more than ten thousand times in the scientific literature, and despite the impact it had beyond the humanities and in the medical education, what we should conclude from it is not obvious. Much like the definition of biomedicine, the definition of the "biomedical model" is not univocal, even in Engel's own paper and this difficulty transmits to his definition of the "biopsychosocial model". Let's first try to clarify what Engel meant by "biomedical model".

Engel's challenge to the biomedical model

First, Engel defines "model" as "nothing more than a belief system utilised to explain natural phenomena, to make sense out of what is puzzling or disturbing" (1977, 130). In the case of the biomedical model, he defines it as a scientific model of disease. However, explanation is not the only thing a model achieves in his view. He also sees the biomedical model as a "blueprint for research" to study diseases, a "shared set of assumptions and rules of conduct based on the scientific method" (1977, 130). Even further, the biomedical model is what serves as a "guideline and justification for medical care policy" (1977, 131). Engel argued that this biomedical model was the dominant scientific approach in medicine in the 1970s in the Western world. On his view, molecular biology was the basic discipline of the biomedical model. In his words, the biomedical model assumes

> disease to be fully accounted for by deviations from the norm of measurable biological (somatic) variables. It leaves no room within its framework for the social, psychological, and behavioral dimensions of illness. (1977, 130)

In other words, according to Engel, biomedicine – i.e. medicine in the Western world – reduces sickness and illness – the social and psychological aspects of illness – to disease, the physical aspect of illness. In that sense, the biomedical model is not only a scientific method, but also a set of philosophical views about the biological and the mental. Engel describes the biomedical model as embracing reductionism and physicalism – the views according to which,

in his words, the biological can ultimately be explained by "the language of chemistry or physics" (1977, 130). Engel then makes a second claim, more peculiar: the biomedical model, according to him, is also endorsing mind-body dualism (1977, 130). This latter claim is rather strange, as physicalism and dualism are opposite positions. A common critique of biomedicine to this day is that it refuses to consider "causes of ill health that are not biological" (Broadbent 2009, 305; cited by Valles 2020). Biomedicine can be reductionistic without necessarily being physicalist. This idea is known as "biological chauvinism" (Broadbent 2009): the idea that there is nothing beyond the biological. It is true that, as Valles has remarked, biochauvinism can also be understood as the view that there is "something unique" about the biological realm (Valles 2020) – something like vitalism. Biochauvinism can either mean:

> 1) a specialness through what life *excludes* (medicine is nothing but applied biology) or
>
> 2) a specialness through what life *includes* (an intangible vital spirit; a unique frame of time and space). (Valles 2020)

Meanwhile, Engel goes further by arguing that biomedicine is physicalist. But claiming that biomedicine is physicalist is contradictory with claiming it is dualist. This is what is usually understood as the "hard problem of consciousness" (Chalmers 1995, 201): although we want to agree with physicalism, it is hard to grasp how mental phenomena can arises from the physical reality. Engel probably thought of dualism because he felt that psychological and social phenomena were excluded by the medical community, in his words, biomedicine requires disease "to be dealt as an entity independent of social behavior" (Engel 1977, 130). Engel was also thinking of how Descartes's dualism made it possible to study the biological bodies *as if* they were machines. But for Engel, biomedicine actually treats patients as broken machines only (1977, 131).

Finally, Engel adds that in Western society, biomedicine has also become "our folk model" of disease – our cultural understanding of disease, a "cultural imperative" and even a "dogma" (1977, 130). According to Engel both antipsychiatry proponents (the "exclusionist" – those wishing to exclude mental illnesses from the realm of medicine) and the psychiatry proponents (the "reductionists" – those wishing to reduce the explanation of mental illnesses to physical facts) will condemn as "heretics" those like him who wish to question the "truth of the biomedical model" (1977, 130). As we shall see, though, Engel is suggesting ways to

complete an insufficient biomedical model, rather than replacing it altogether (1977, 132). His position, rather than being groundbreaking, embraces something like a middle path that can content everyone. At first sight, the biomedical model for Engel is not solely something like the definitions of health and disease. It is much broader. By challenging this model, Engel, challenges a vast array of different phenomena: a theoretical framework to explain the causes of disease and illness; the scientific methods in investigating diseases, illnesses, and their treatments; as well as the way doctors interact with and treat their patients in the Western world.

Engel's biopsychosocial model

When Engel insists that we should "include the psychosocial" (1977, 131) in medicine, it thus means several things. Engel puts forward different claims ranging from reconsidering methods in clinical research, to reforming medical policies, and amending philosophical views about health and disease. First, on Engel's view, the medical model should account for all aspects of disease and illness, notably the reality of diseases "as human experiences as well as disease abstractions" (1977, 131). According to him, the biomedical model by contrast, forgets these aspects and "interferes with patient care" (1977, 131). This is the only way, according to Engel, to account for the fact that it is possible to have a disease at the biological level, without an illness at the level of the "human experience of illness" (1977, 131):

> The abnormality may be present, yet the patient not be ill. (1977, 131)

Furthermore, Engel insists that a disease affects an individual. As such, how the disease presents itself clinically, how the symptoms are reported by the individual, all of this "require consideration of psychological, social, and cultural factors" (1977, 132). In other words (although Engel does not use this vocabulary), care should be holistic. But Engel does not stop at this holistic claim. His second claim is that this relationship between biological phenomena, behavioural, and psychosocial data should be studied in a scientific way. It requires, he writes, a "scientifically rational approach" of how clinical phenomena are reported by patients, notably by collecting data and conducting interviews. In his words, the goal is to reach a reliable "interview process and the necessity to analyze the meaning of the patient's report in psychological, social and cultural, as well as in anatomical, physiological, or biochemical terms" (1977, 132).

A third claim made by Engel is that health inequalities demonstrate that psychosocial variables are at play in disease causation. Moreover, psychosocial variables also determine whether a person and when a person will "view themselves as sick" (1977, 132) and accept the "sick role or the status of a patient" (1977, 132). Engel adds that these same psychosocial factors will be important in the success of care. It could be that a person is "cured" at the biological level while remaining ill. Some will recognise the familiar distinction in anglophone philosophy of medicine between disease (the physical aspect of disease), illness (the experience of being ill), and sickness (the social role as a patient).

Finally, Engel makes claims about the implication of these points for clinical practice. He notes that the relationship between the patient and the physician as well as the behaviour of the physician "powerfully influence therapeutic outcome for better or worse" (1977, 132). He is probably thinking here of the placebo and nocebo effects, although he is not using the terms. Inspired by psychosomatic medicine, he argues that these "psychological effects" may directly modify the illness experience by affecting the biological processes of the disease themselves:

> Thus, insulin requirements of a diabetic patient may fluctuate significantly depending on how the patient perceives his relationship with his doctor. (1977, 132)

Engel also includes patient compliance as one of the goals of doctors, noting that the successful treatment is limited "by the physician's ability to influence and modify the patient's behavior in directions concordant with health needs" (1977, 132). This line of argument goes even further, as Engel goes on to argue that

> the physician's role is, and always has been, very much that of educator and psychotherapist (…). To know how to induce peace of mind in the patient and enhance his faith in the healing powers of his physician requires psychological knowledge and skills, not merely charisma. (1977, 132)

Those are quite strong claims that will make later critics argue that Engel tried to psychologise medicine (Ghaemi 2009, 3). The "social" in the biopsychosocial model appears rather tone down compared to the "psychological".

The biopsychosocial model put forward by Engel was extremely ambitious as it aimed to cover all possible phenomena having an impact on the illness experience. Engel even

gestured at the need to take attention to the "complementary system devised by society to deal with the disruptive effects of illness, that is, the physician role and the health care system" (1977, 132). But is his all-encompassing approach really a model in any useful practical or philosophical sense? Overall, Engel is describing as he sees it the logical consequences of embracing a holistic definition of illness for medicine. As for the philosophical views of the model, Engel does not defend it explicitly, but he endorses holism. He describes for instance the "psychobiological unity of man" (1977, 133). Engel does acknowledge that others have already suggested holistic concepts of health and disease in the past, although he does not mention the WHO's definition or the work of Roy Grinker, who coined the word "biopsychosocial". He stresses instead the role of Freudian psychoanalysis, psychosomatic medicine, and general systems theory (1977, 134).

Compared to the neatly conducted conceptual analysis debate on the definition of health and disease, Engel's influential paper will probably strike philosophers of medicine as being vague and difficult to grasp. In some medical fields, like psychiatry, it nonetheless became the new "conceptual *status quo*" (Ghaemi 2009, 3) according to some of its detractors. It is seldom questioned. However, as we shall now see, several – especially in the context of psychiatry – have criticised the biopsychosocial model for being no more than a catchphrase.

The biopsychosocial model, more than a catchphrase?

Different psychiatrists and philosophers of psychiatrists have recently questioned the relevance of Engel's biopsychosocial model. S. Nassir Ghaemi is probably the one who attacked Engel's model in the strongest way in *The Rise and Fall of the Biopsychosocial model* (Ghaemi 2010). For Ghaemi, the biopsychosocial model is the "mainstream ideology of contemporary psychiatry" (Ghaemi 2009, 3). Although some see the model as a solution to the "biomedicalization" and increasingly industrialisation of pharmacy, medicine and psychiatry, Ghaemi goes as far as to arguing that Engel's model goes hand in hand with these issues: it might have even caused them. Some have notably argued that the biopsychosocial model was just a way for psychoanalysis to be preserved within psychiatry "through the back door" (Shorter 2005, cited by Ghaemi 2009, 3). Though, the model is also taught in countries such as France, where psychoanalysis has still a strong presence. But what are Ghaemi's qualms with Engel's model? The main issue with the approach according to Ghaemi is that it

is both too vague and too general. It tries to encompass everything: medical research, clinical research, clinical care, policies… Ghaemi refers to this issue as "eclecticism":

> one can emphasise the 'bio' if one wishes, or the 'psycho' (…), or the 'social'. But there is no rationale why one head in one direction or the other: by going to a restaurant and getting a list of ingredients, rather than a recipe, one can put it all together however one likes. (…) The biopsychosocial model, as classically advanced, does not guide us on how to prioritise. Consequently, prioritisation happens on the run, with each person's own preferences, and the model devolves into mere eclecticism, passing for sophistication. (Ghaemi 2009, 3)

Interestingly, Ghaemi concludes that the biopsychosocial approach "only shines when opposed to straw men" (2009, 4). One contentious question is indeed whether the biomedical model described and criticised by Engel in his 1977 is instantiated in the world as such, especially today. It is a difficult question, since, like all definitions of biomedicine, the biomedical model is a critical construction. But few today would deny that psychological or social factors have a play in diseases. Similarly, few would argue doctors should attend only the biological causes of diseases without regards for the social or psychological context of illness and treat patients as mere machines. Though, some have argued that Engel's approach remains relevant precisely as a cautionary tale in teaching medical students to avoid precisely doing that (Kendler 2020, 999)[6]. Other have contested this point, however. Chris McManus wrote for instance that "[a]rm-waving and the inclusion of everything ultimately says and does little of practical consequence" (McManus 2005, 2169). Recent attempts have, however, been made to rehabilitate Engel's model, notably by Derek Bolton and Grant Gillett (Bolton and Gillett 2019). Their starting point is to acknowledge the issue of the vagueness and the lack of specific scientific and philosophical content within Engel's model. They agree that the formulation of Engel's "model" does not in fact solve much:

> The problem whether the cause of illness, and hence in theory its prevention and treatment, is biological, psychological or social is solved, because the answer is 'all three'. (Bolton and Gillett 2019, 6)

As they see it, the biopsychosocial does not resolve the important question at stake, that of the different causes of illness and disease and how they interact, but they contend that it could. In their book, they endeavour to enhance the model by refocusing it around the

[6] This specific comment is made by Kendler's spouse - Susan Miller, whom he cites within his paper.

metaphysical and epistemological questions at stakes. Their approach, however, will probably not appease Ghaemi, for he insists that the root of the issue in Engel's approach was to attempt to answer these causal questions in the first place "through psychologized scientism" (Ghaemi 2009, 4). He dooms Engel's model as being anti-humanistic and he put forward instead "medical humanism", insisting that the dichotomy between art and science in medicine, such as found in the writings of Osler (1932), should be endorsed again (2009, 4). As I commented in the previous part, medical humanism has been around since the end of the 19th century, almost always directed against biomedicine or scientific medicine before the term was coined. While the biopsychosocial model has become mainstream in its simplest idea – the biological, the psychological and the social are all somewhat important in medicine, be it research or care – a new humanistic trend has emerged in the medical humanities and the philosophy of medicine. Interestingly, although Ghaemi was declaring the biopsychosocial model anti-humanistic, most medical humanistic approaches embrace in spirit and in various degrees Engel's approach, notably as a starting point in their reflection (Charon 2006, 8, 26, 232; 2001, 1898; Puustinen, Leiman, and Viljanen 2003, 77–78; Toombs 2001, 8; 1988, 201; Svenaeus 2013, 222). Medical humanism stems from the same critical tradition aimed against biomedicine. The next section covers this revival of medical humanism or humanistic medicine.

The revival of medical humanism

What we can be labelled as "medical humanism" – wishing for more "humanism" in medicine – has become ubiquitous in both the public discourse, medical humanities and among medical practitioners. Talks about "humanism" are not aimed at reconnecting with the *Renaissance*; instead, the term is used to refer to what makes us act in a humane or compassionate way. As we have seen, this idea has been around at least since the rise of modern medicine – and as a reaction to it, but there has been a relatively recent revival of the trend in humanities disciplines, notably philosophy.

The label "medical humanism" has been embraced by philosophers such as James Marcum (2008a; 2008b; 2017), who opposes it to "medical scientism" (Marcum 2017, 13–14). For a lack of a better term, "humanistic" medicine refers to a philosophical approach wishing to put subjective interactions and the subjectivity of patients at the heart of

medicine (Marcum 2008a, 393). Medical humanism, according to Marcum, is what promote the "art" of medicine against the domination of the "science" of medicine (2017b, 5). Together with "science", Marcum lists evidence-based medicine, evolutionary medicine, epidemiology and genomics. On the "art" and humanistic side, Marcum lists patient-centred medicine, phenomenology of medicine, narrative medicine and other similar approaches. He writes that medical humanism is attempting to "(…) recover medicine's moral imperative to relieve human suffering and to restore human dignity" (Marcum 2017, 10). Is this new medical humanism an alternative to biomedicine? Not exactly, as for Marcum and others, humanism should only "complete" biomedicine and the scientific side of medicine. Humanistic approaches such as the phenomenology of medicine and narrative medicine do not necessarily embrace the humanistic label itself but join force, as we shall see, in using certain philosophical or literary approaches, in challenging once again biomedicine in the hope this time of "humanising" medical practice. One important thing that distinguishes these different approaches is how they define and criticise biomedicine. As we shall see, this leads them to focus on different questions. Philosophers of medicine (Solomon 2008; 2008; Sholl 2015; Ferry-Danini 2018; 2019a) have paid attention mostly to two approaches, narrative medicine and the phenomenology of medicine. Each approach faces their own theoretical challenges, both in the way they present and criticise what they take to be biomedicine and in the specific tools they suggest should be introduced in medicine. In what follows, I mention these approaches' principal claims and the main challenges they encounter.

Phenomenological approaches to medicine

The main goal of the phenomenological approaches to medicine is to put a new light on the patient's illness experience. Proponents of phenomenological approaches to medicine are especially unsatisfied with the naturalistic philosophical views that go with biomedicine, notably views about disease and illness. For instance, for Havi Carel, one of the main proponents of the phenomenology of medicine writes that her "main discomfort with the orthodox concept of illness is that it originates in a naturalistic approach" (Carel 2008, 9). Some other proponents of the phenomenology of medicine take discomfort in the perceived Cartesianism and dualism of biomedicine in a way that is reminiscent to Engel (Toombs 1988, 221). Overall, proponents of the phenomenology of medicine focus on the philosophical views they think are at the root of biomedicine's shortcomings. Naturalism is usually the most

common culprit. Whether phenomenology of medicine is successful in challenging naturalism in medicine has been discussed in length by Jonathan Sholl (2015) and myself (Ferry-Danini 2019a).

By "phenomenology" one should understand the philosophical approaches born from the work of Edmund Husserl, Martin Heidegger or Maurice Merleau-Ponty. It should not be confused with the use of the same word in contemporary philosophy of mind. Different proponents of the approach have defined different philosophical goals for phenomenology – as a philosophical approach – for the philosophy of medicine. One of these goals is analysing the experience of illness. S. Kay Toombs for instance has defended a Husserlian phenomenological analysis of disease (Toombs, 1987, 1988) and suggested that illness is defined by a loss of coherence or feeling whole, or a loss of freedom. Fredrik Svenaeus has argued instead for a Heideggerian phenomenological approach based on the "every day" and ordinary experience of illness, in order to reach "the meaning of human experience situated in the world" (Svenaeus 2001, 90). Based on a Heideggerian vocabulary, Svenaeus defines illness as a case of "unhomelikeness", or in other words, a disruption of our familiarity with the world. In health, our body "flows" (2001, 95), in illness that flow breaks down. Carel also defines illness as a disruption of everyday life and writes that

> (…) the healthy body is transparent, taken for granted. It is only when something goes wrong with the body that we begin to notice it. (Carel 2008, 31)

Each of these definitions, although attempting to reach something universal – not unlike conceptual analysis – face counterexamples, by the proponents' own admittance. For instance, Svenaeus ponders about the feeling of "unhomelikeness" one feels when lost in the woods (Svenaeus 2001, 102). But conceptual analysis is not the only goal proponents of phenomenology of medicine have put forward for the approach. Havi Carel have recently suggested that the strength of the phenomenological approach to illness is that it is both a search for "general features" of illness (Carel, 2011, 35) and an investigation of the particularity of subjective illness experiences:

> (…) illness experiences are heterogeneous and need to be studied in their particularity. However, I also claim that we can identify changes in the global structure of experience that apply to many, or even all, illnesses. Hence, it is the dual role of phenomenological approach both to attend to the

> individual and idiosyncratic experience of illness as well as to discern systematic changes to the structure of experience brought about by illness. (Carel 2016, 2–3).

The idea that phenomenology is a particularly good method to study, examine and describe the "lived experiences" of illness is a central idea of Carel's approach. What matters is the "subjective and prereflexive" human experience of illness (Carel 2016, 1–2, 14; 2008, 10). However, how is such a study of idiosyncratic experiences compatible with an attempt at a generalisation? This is probably one important methodological challenge for the approach. One issue is that although transcendental phenomenology is traditionally a method to study subjectivity – as the condition of the possibility of all experiences – it does not mean that it is a method to study subjective experiences. In another context, Amie Thomasson raised a similar worry about this interpretation of phenomenology:

> (...) phenomenology is often presented in the analytic literature (e.g., Dennett 1987, 154, 157-158; 1991, 44) as an introspective method of gaining knowledge about the "feel" of one's own experiences. But this characterization is antithetical to Husserl's phenomenological methods; in fact, he often explicitly inveighed against this approach to phenomenology. (Thomasson 2007, 86).

Husserl indeed denounced any attempt to base the phenomenological method on mental psychological data or what he called "psychologism." This anti-psychologism, which prevents phenomenology to take as a task to study our everyday private subjective mental experiences, goes together with a transcendental approach. Havi Carel is aware of these difficulties. She has recently suggested that phenomenology of medicine can retain its fruitfulness and yet abandon transcendentalism:

> For the purposes of describing the experience of illness, it is enough to consider the general features of illness without insisting on the transcendental nature of its features. (Carel, 2011, 35)

One issue is that the transcendental feature of phenomenology was the main reason for rejecting naturalism. We are left with the phenomenological vocabulary to describe subjective experiences of illness, a project that could very well intersect with empirical disciplines such as psychology, anthropology, or sociology. There is a tension within phenomenological approaches to medicine between the wish to challenge naturalism thanks to

phenomenology's transcendental approach and the wish to simply use phenomenological vocabulary and concepts to introspect our inner life experiences during illness.

It could be argued that phenomenological approaches to illness feature the same eclecticism reminiscent of Engel's biopsychosocial model. Carel writes for instance, that beyond their bodies, patients are "psychological, social, cognitive, emotional, existential, and temporal" beings (Carel 2001, 42). According to the proponents of the approach, the phenomenological descriptions of illness should be a new foundation for medical practice as they would help, not only patients understand their own illness experiences better, but also health practitioners in understanding illness experiences and act in more humane or compassionate ways (Carel 2011, 43). A common idea found across the writings of the phenomenology of medicine is indeed that the approach will make medical professionals express more empathy and compassion for their patients:

> The core idea of phenomenology is pertinent here. If health care practitioners devoted more time to understanding the experience of illness, much of the misunderstanding, miscommunication and sense of alienation that patients report might be alleviated. Phenomenologically inspired medicine would become a genuinely human science, where each term illuminates the other. One way of developing such understanding is by enabling the medical practitioners to have first-hand experience of the patient's world. (Carel 2008, 52)

In other words, phenomenology is seen as a key method to foster empathy among health practitioners, thanks to a newfound focus on the illness experience.[7] This focus on compassion and empathy is a common feature shared with narrative medicine, to which I will now turn.

Narrative approaches to medicine

Narrative medicine is set at a crossroad between different disciplines: literary studies, critical studies, medical pedagogy and philosophy; it is often navigating what we call "medical humanities" (Whitehead and Woods 2016), which constitute a broad ensemble of fields of study dedicating to medicine from the point of view of the "*humanités*". As in the case of the phenomenology of medicine, there is a lot of enthusiasm, but little critical discussion. A

[7] For a more detailed analysis of the methodological challenges faced by the phenomenological approaches to medicine, including on the question of empathy, see (Ferry-Danini 2019b).

notable exception are the analyses offered by Miriam Solomon and myself (Solomon 2008; 2015; Ferry-Danini 2019; 2020).

Narrative medicine is a motto used to promote the idea that narration and stories (of illness) are essential for medicine and medical practice. This is not just the idea that one must listen to his or her patient's story of illness, but the stronger claim that attention to the literary form of stories and their narrative characteristics is important for medical practice. That is why narrative medicine proponents insist that knowledge of narratology and literary theory are important for medicine. Rita Charon is one of the main proponents of the movement. She sums up the ambition of the approach in the following passage:

> From the humanities, and especially literary studies, physicians can learn how to perform the narrative aspects of their practice with new effectiveness. Not so much a new specialty as a new frame for clinical work, narrative medicine can give physicians and surgeons the skills, methods, and texts to learn how to imbue the facts and objects of health and illness with their consequences and meanings for individual patients and physicians. (Charon 2001, 1898)

As the other humanistic approaches to medicine, narrative medicine also starts by a critical construction of biomedicine. However, in the case of this approach, it is medicine as a science, not naturalism or other philosophical views, that is criticised. But narrative medicine does not reject science; it wishes to complement it with a narrative approach. Narrative "expertise" refer to variety of competences, including "textual skills" (for instance, identifying a story's structure), "creative skills" (for instance, imagining possible scenarios or outcomes), and finally "affective skills (Charon 2004, 862). Charon makes references to reader-response theory (Charon, 2006, 40), and most often to narratology theorists such as Gérard Genette, Tzvetan Todorov or Shlomith Rimmon-Kenan. The idea is to use theories of reading in order to improve clinical practice: listening to patients is compared to reading a text. Narrative expertise is seen as enabling health professionals to make good deductions about their patients and lead to better, compassionate care:

> These capacities will lead to more humane, more ethical, and perhaps more effective care. (Charon 2006, vii)

Narrative medicine is mostly unsatisfied with the scientific method used in medicine. One main issue with science, according to Charon, is that it focuses on the general, whereas patients are individuals. She notably cites Genette, writing that "there is (…) science only of

the general" (Genette, 1972, 69; cited by Charon, 2006, 47). Although most proponents of narrative medicine only wish to complement science, they still note that it had negative effects on patients. For instance, Kathryn Montgomery Hunter, one of the earlier proponents of narrative medicine, wrote that

> Despite its success, medicine's identification as a science has had adverse effects (…). It encourages physicians and patients alike to focus narrowly on the diagnosis of disease rather than attend to (…), the care of the person who is ill (…). (Hunter 1991, xix)

This is, of course, reminiscent of the critiques found in Engel's challenge to the biomedical model.

There are different issues with the way science is discussed and described within the narrative medicine literature.[8] To cite just one, Charon has misunderstood Genette's point about science. If he indeed wrote that "there are only singular objects and science only of what is general", he continued with, "what is general is at the heart of the particular, and therefore (contrary to common preconception) the knowable is at the heart of the mysterious" (1972, 69).[9] Genette does not say that knowledge or scientific knowledge cannot deal with what is singular.

This caveat weakens one of the main arguments for narrative medicine put forward by Charon: singular experiences of illness and their stories are absolutely singular, untraceable by science, and can only be understood through narrative tools. Again, to make that point, Charon quotes Genette:

> *In Narrative Discourse*, itself a book-length comment on Proust's *À la recherche du temps perdu*, Genette writes, 'The specificity of Proustian narrative, taken as a whole is irreducible, and any extrapolation would be a mistake... *[T]he Recherche*[10] illustrates only itself. (Charon 2006, 45)

But what does this famous quote, "The *Recherche* illustrates only itself" mean? Charon interprets this passage as stating that all stories are absolutely singular, untraceable by any

[8] For more details, see (Ferry-Danini 2018).
[9] Personal translation.
[10] "*La Recherche"* is the nickname of Proust' novel.

kind of method and perfectly mysterious. But this is not what Genette meant. This is how the paragraph continues:

> The *Recherche* illustrates only itself. But, on the other hand, that specificity is not *undecomposable* (...). To analyse it is to go not from the general to the particular, but indeed from the particular to the general (…). (Genette, 1972, 22, 23)

The aim of Genette is not to argue that the singularity of the work of Proust forbids any study or general examination. Furthermore, narratology and literary criticism are not meant as tools for us to know something "absolutely" unique or singular about stories. One of the goals of narratology is to study stories by identifying different narrative types. The way illness narratives can be very similar from a narrative point of view have been emphasized by several (see for instance Solomon, 2015, 198), and several sociologists have offered classifications and descriptions of types of illness narratives (see Robinson 1990 and Bury 2001)[11].

A challenge for medical humanism

Whether it is narrative medicine or the phenomenology of medicine, the revival of medical humanism gravitates around one common focus: the idiosyncratic and singular experience of illness and the intersubjective nature of the clinical encounter, with an additional focus given to the importance of empathy and compassion. I have argued elsewhere that this type of approach is insufficient, in so far at it restricts medicine to the clinical encounter and does not take into account the health system – including the reimbursement system – on which that encounter is based on (Ferry-Danini 2018). They also say little about the social aspects of health and disease, or questions of health justice, which is at odds with the label of "humanism", which should denote a concern for global human welfare and not only a concern for individuals. Surprisingly, the current revival of medical humanism seems more aligned with the romantic view of the doctors painted by the medical profession at the turn of the 20th century rather than with the social and humanist approaches put forward by Sigerist or the earlier founders of the WHO. Some have further argued that the focus on empathy in medicine might be misguided (Macnaughton 2009; Ferry-Danini 2020b). Jane Macnaughton has for instance argued that empathy can lead doctors to make judgement mistakes and that

[11] For more on the ambiguity of the singularity of illness experiences, see (Ferry-Danini 2020a).

it is in no way a reliable guide to other people's mind and feelings during the medical encounter (Macnaughton 2009, 1941).

Finally, it could be said that both narrative medicine and the phenomenology of medicine are too conciliatory with "biomedicine", if we take it to mean, medicine in the contemporary Western world. Critiques of naturalism or science found within these humanistic approaches are in fact far less radical than critiques about medical knowledge and the different ways medical research has been found to be biased (see for instance Goldacre 2012; Stegenga 2018). Since most of these approaches suggest only to complete biomedicine only, they might even be seen as too conciliatory in that regard. Medical humanism thus currently stands in an uncomfortable position. On the one hand, it stands on different theoretical grounds that may prove shaky. On the other hand, the approach does not seem to revolutionise the different debates on biomedicine and the importance of social and psychological phenomena in health and disease. Only the future will tell whether these approaches will go past these challenges and establish themselves in the medical landscape in the same way the biopsychosocial model did.

Conclusion

The goal of this chapter was to explore the long multidisciplinary tradition of shaping biomedicine as a critical construction. It was important to insist on the context in which Engel's biopsychosocial model came to prominence – the debate over psychiatry in the 1970s – and how Engel's challenge to biomedicine came to be in light of that long critical tradition. That tradition is also key in understanding the new methods and models that have been recently suggested to improve medical care and labelled as "medical humanism" by different scholars. « How do we see beyond the catchphrases, buzzwords, and rhetorical stances of these new medical methods to figure out what their real contributions are? » (Solomon 2015, 9) This chapter has not given a definite or exhaustive answer to this question; however, it gave necessary background context and a few tools to do so. Because the "biomedical model", or "biomedicine" is a vague object, one can wonder if it is a fruitful concept to criticise medicine ills and promote something like humanism, as appealing as the idea is.

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