

Philosophy of Medicine

Book Review

Vital Norms: Canguilhem's "The Normal and the Pathological" in the Twenty-First Century, edited by Pierre-Olivier Méthot

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Anyone familiar with recent continental philosophy of biology and medicine might have noticed a spike in interest in the work of the French philosopher Georges Canguilhem. Numerous workshops and conferences have been organized in the last few decades, focusing on the relevance of his work for the history of philosophy and for contemporary debates in philosophy of the biomedical sciences. This is also shown in the ever-increasing number of books on Canguilhem, especially in France (see, for example, Daled 2021). The last ten years have seen the publication of the complete works of Canguilhem in French, finally making available hard-to-find or unpublished materials (Canguilhem 2011, 2015, 2018, 2019, 2021). But, perhaps more significantly, in the last few years Canguilhem's work has, for the first time, also become the central object of a number of anglophone monographs. Whereas Stuart Elden's *Canguilhem* (2019) gives an overall introduction to Canguilhem's philosophy, and Samuel Talcott's *Georges Canguilhem and the Problem of Error* (2019) offers a rereading of his overall project through the concept of error, *Vital Norms*, edited by Pierre-Olivier Méthot, focuses on one particular book by Canguilhem: *The Normal and the Pathological*. Indeed, it describes its own ambition as wanting to be "the first to comprehend Canguilhem's biological philosophy in *The Normal and the Pathological*, and to read it with fresh eyes from both a historical and a contemporary perspective" (Méthot 2020, 10).

Georges Canguilhem (1904–1995) was a French philosopher who has been very influential in France, though less known on the international scene. His work has had a deep impact on the work of Michel Foucault, François Delaporte, Pierre Bourdieu, Claude Debru, Jean Gayon, Anne Fago-Largeault, Camille Limoges, and François Dagognet. In Anglo-American philosophy of biology and medicine, his work has been ignored for a long time, though it was taken up by Marjorie Grene (2000), and a special issue of *Economy and Society* on Canguilhem included contributions by prominent scholars such as Ian Hacking (1998), Annemarie Mol (1998), and Nikolas Rose (1998). Canguilhem's work is often situated in philosophy of biology and philosophy of medicine but is also linked to the tradition of "historical epistemology," a particular type of philosophy of science, strongly present in twentieth-century France, which addresses philosophical questions through



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historical means, in particular the history of science. The label was popularized by Dominique Lecourt (1969, 1972), originally referring to the work of Gaston Bachelard, Georges Canguilhem, and Michel Foucault.

After studying philosophy in the 1920s, Canguilhem started his studies in medicine, resulting in a dissertation called “Essai sur quelques problèmes concernant le normal et le pathologique” in 1943. It is here that Canguilhem proposes a number of very influential ideas about how to understand the normal and the pathological, disease and health. For him, the pathological refers not to an organism governed by no norm whatsoever but rather to the situation where the organism is following a restricted norm. The organism can still act “normal” in certain situations—for instance, when lying warm and comfortable in bed—but is unable to deal with perturbations of that environment—in the form of, for instance, noises, lights, the need to get out of bed and expend physical or mental effort, and so on. In that sense, a disease can be seen as normal as well. Health and normality cannot thus simply be equated. Instead, as Canguilhem famously put it, to be healthy actually means to be able to overcome one’s norms: “Man [sic] feels in good health—which is health itself—only when he feels more than normal—that is, adapted to the environment and its demands—but normative, capable of following new norms of life” (Canguilhem 1978, 200). To be healthy means that one is able to successfully face the challenge of new environments where new norms reign.

After his dissertation in medicine—and a brief moment of practicing medicine as part of his resistance activities during World War II—Canguilhem “returned” to philosophy and mainly gained a reputation as a historian of the life sciences and related disciplines (ranging from psychology to medicine). His doctoral dissertation in philosophy concerned the history of the reflex concept and was defended in 1955 under the supervision of Gaston Bachelard. Canguilhem would then take up Bachelard’s professorship at the Sorbonne and his position as the director of the Institut d’histoire des sciences et des techniques (IHST). In 1966, Canguilhem would republish his original dissertation in medicine on the normal and the pathological, but with an additional second part, consisting of three new chapters. It is this version that is used today. It was translated into English in 1978 as *The Normal and the Pathological*.

Vital Norms aims to explore and clarify this influential though often enigmatic book. It aims to do so through Méthot’s long introduction, followed by twelve chapters. The volume is a fine production, with good editorial work resulting in a set of fluently written texts, free from any obvious mistakes. The e-book I received, however, was of poor quality, with a paranoid number of watermarks that often made the text quite unreadable. Communication with Hermann, the publisher, concerning this issue, was unfriendly and unproductive. The book follows the French habit of putting the table of contents somewhere at the back, which therefore makes it a bit tricky to find. But such issues concern the publisher, not the authors. Méthot’s introduction gives a very helpful overview of the life and work of Canguilhem, situating him in place and time, and stressing the importance of his work. Méthot also does a particularly good job of situating Canguilhem as a historical epistemologist and as a philosopher of medicine. Méthot moreover claims that Canguilhem’s 1943 dissertation constituted “the return of biological philosophy in France” (Méthot 2020, 16). The claim is that biology gained a bad reputation in the 1930s and 1940s, mainly as a result of the link between biology, vitalism, racism, and fascism. But mainly because of the efforts of

Canguilhem, biology became an acceptable domain for philosophical exploration after World War II.

The rest of *Vital Norms* is divided into three parts, each consisting of four chapters. Though each chapter addresses *The Normal and the Pathological*, the three parts do so for three radically different reasons. The first four chapters can best be labeled “history of philosophy,” aiming to situate Canguilhem and his book in twentieth-century history of philosophy and science. The second group of chapters, in contrast, have the ambition to show the fecundity of Canguilhem’s work for a number of contemporary philosophical debates. The final four chapters confront Canguilhem’s thesis with a set of contemporary developments within biomedical sciences. The result is the feeling that one is reading three books, instead of one.

The first cluster of chapters (Joshua Bauchner, Xavier Roth, Pierre-Olivier Méthot, and Mathieu Arminjon) is mainly relevant for the reader interested in Canguilhem’s work from a historical point of view: how must we situate his work and claims in the twentieth century? To give just one example: Roth (Chapter 2) continues a theme already present in his earlier French book on Canguilhem (Roth 2013) and follows a line of argument in the recent literature, correcting the mistaken view that Canguilhem’s career only started in 1943. In fact, “by the age of 39, he had already published about one hundred articles as well as a lengthy social and political manifesto, *Le fascisme et les paysans* (Fascism and Peasants, 1935)” (Méthot 2020, 103). As others before him, Roth therefore wants to focus on this “Canguilhem before Canguilhem” (Braunstein 2000) and for us to reread his later works, including his dissertation, in this light. What follows is a beautiful rereading of the project of Canguilhem, including offering reasons why he wrote *The Normal and The Pathological*.

For Roth, Canguilhem is not just a historical epistemologist but must rather be read in line with earlier French neo-Kantianism, linked to authors such as Alain, Léon Brunschvicg, Jules Lagneau, and Jules Lachelier. From this perspective, Canguilhem’s interest in medicine and history of biology is a product of a deeper underlying philosophical question concerning the hierarchy of values: how do the different values that we are confronted with in our lives relate to one another? Canguilhem mainly argues against the flattening of all values to one, in particular to truth. Hence, in a number of texts from the 1930s, Canguilhem explores how technology is a different way that humans install values in the world, not aimed at how the world is but how it could be. In the 1940s he shifts to another instance where truth is not the main value—namely, medicine. In medicine, so Canguilhem argues in *The Normal and the Pathological*, the ultimate norm is not truth but the experience of the living. This does not mean that truth plays no role, only that it does not have a monopoly. Hence, the task of the philosopher is to search for a unity between these different values, not so much in the form of a reduction but rather in the form of coexistence.

This rereading is certainly convincing, but Roth perhaps puts a too sharp opposition between this project and that of historical epistemology. Such a sharp distinction is not surprising, given that historical epistemology nowadays is often reduced to a narrow form of history of science. We also find such a reduction in Méthot’s introduction. But, in fact, it is a common trope in the work of early twentieth-century French epistemologists—such as Léon Brunschvicg and Émile Meyerson—to refuse to label themselves as historians of science. Instead, and similar to Canguilhem, they see history of science as a tool for exploring other philosophical questions, often linked to the “writing of the history of the mind” (Chimisso 2008). Cristina Chimisso explicitly places Canguilhem in a continuity with

that tradition. Thus, Roth's proposed rereading of Canguilhem does not so much oppose Canguilhem to historical epistemologists but further integrates him into that tradition. As these discussions already hint at, to fully appreciate these chapters, it is often required that one is acquainted with the existing (often French) literature on Canguilhem. Though the introduction helps to some extent, for someone completely unfamiliar with Canguilhem, these first chapters might remain somewhat enigmatic in what they are trying to achieve.

If we switch to the second cluster of chapters (Charles Wolfe, Matteo Penoncelli, and Andy Wong; Jonathan Sholl; Arantza Etxeberria Agiriano; Anders Kruse Ljungdalh), we enter a totally different set of debates. Here, the stake is not so much the correct description of Canguilhem's book and its context but rather exploring how certain themes in that book can help us in other existing philosophical debates. For instance, in Chapter 5, Wolfe, Penoncelli, and Wong address the question: "Is *The Normal and the Pathological* vitalist?" (Méthot 2020, 223). Again, this chapter builds on decades of work already done by Wolfe and his colleagues on this question, and the answer is a qualified "yes." The issue then becomes what kind of vitalism is at work in Canguilhem's book. As Wolfe has argued in many other publications, it is not a metaphysical vitalism that is at work in Canguilhem. Rather, according to this chapter, it is vitalism in "the form of a natural attitude on the part of the knowing subject, which cannot fail to recognize the living as 'original' or 'special', in response to a need that the living, *le vivant*, imposes upon finding itself, mirroring and recognizing itself in a living outside" (226). In earlier work, Wolfe has already called this form "attitudinal vitalism" (Wolfe 2011, 214). But in this chapter, the authors claim to find an additional form of vitalism in *The Normal and the Pathological*, calling it "property vitalism" (Méthot 2020, 248), which starts from a more substantial demarcation line between what is alive and what is not. What this vitalism exactly entails is not fully clear at the end of the chapter.

A clearer chapter is that of Sholl (Chapter 6), which is one of the chapters that are perhaps best suited for those completely unfamiliar with Canguilhem (as is the chapter by Arminjon). Both chapters, but Sholl's especially, approach Canguilhem from the outside, with a clear external set of concerns and questions. In the case of Sholl, it is the familiar tension between descriptive biology and the normative medicine: biology is about how our bodies are, whereas medicine is concerned with how our bodies should be. Sholl suggests that Canguilhem's focus on "*biological or vital normativity*" (Méthot 2020, 256) is a way out of this dilemma, and what he proposes in this chapter is a rebuttal of a number of common criticisms of Canguilhem's philosophy, especially the often-heard complaint that Canguilhem's work is outdated in the light of more recent developments in molecular and evolutionary biology. Sholl rather convincingly shows that Canguilhem was aware of these developments (an argument also made in the chapter by Méthot) and that his work is compatible with these developments, and especially also more recent developments in developmental biology, evolutionary developmental biology (evo-devo), and niche construction.

To pick out another example from this part of the book, Ljungdalh has a rather different ambition with Canguilhem in Chapter 8: to show the fecundity of his work for a "patho-epistemology," arguing "that the pathological holds the potential to critically highlight the reasoning embedded within various historical, cultural, and institutional contexts" (Méthot 2020, 336–337). The idea is rather simple: the norms by which we live and organize our society are often invisible and left implicit. They are only made visible through a contrast

with cases where these norms are absent. This can be done through variation in time (history) and space (ethnography). But there is also the option to focus on the pathological: by looking at those moments deemed pathological by society, or by the organism, we notice the norms that are otherwise already at work. In that sense, we end with a patho-epistemology. This is definitely not a new idea, nor one particular to Canguilhem. It is embodied in whole research programs, such as the ethnomethodology of Harold Garfinkel, which Ljungdahl also mentions (339), or studies inspired by Foucault. What Canguilhem would add to this picture is his particular notion of the pathological: the pathological is not the lack of a norm but a more restrictive norm that can only function in specific circumstances. Ljungdahl mainly explores the example of attention and how it is seemingly absent (or present in a different form) in the case of ADHD (attention deficit hyperactivity disorder).

The final cluster of chapters (Élodie Giroux; Pierre-Luc Germain and Giuseppe Testa; Alessandro Blasimme; Lara Keuck and Alfred Freeborn) shifts its focus once again. These chapters are not so much concerned with Canguilhem's relevance for philosophical debates but rather his value for understanding a number of empirical cases and recent historical developments in the biomedical sciences. The growing interest in the work of Canguilhem partly shows itself here. His work is often read as providing us with sticks with which to beat contemporary reductionists in the life sciences, or to highlight commonalities with recent developments in evo-devo, systems biology, work on niche construction, and so on. There is a recurrent danger in this type of project, since it risks reducing Canguilhem to a pawn in the celebration of nonreductionism and holism, without being clear in any way what the alternative position precisely entails, or without being able to recognize that in fact one is dealing with a colorful collection of different yet often incompatible positions.

The chapters in this cluster do have the merit of going beyond such platitudes, and address both similarities and differences between Canguilhem's work and the recent topics they focus on. For instance, in Chapter 9, Giroux confronts Canguilhem with recent developments in personalized medicine (PM). Her aim is "to confront the kind of individualization of health phenomena defended by PM with that defended by Canguilhem" (Méthot 2020, 359). And though at first sight PM seems to be a reaffirmation of the work of Canguilhem, Giroux warns that there are a number of important differences in how both understand this individuality and the capacities of medicine "of objectifying, quantifying, and making predictions regarding individual health" (401).

Similarly, in Chapter 10, Germain and Testa confront Canguilhem with postgenomic life sciences, in particular as a result of the development of genome-sequencing methods and cell-reprogramming platforms, leading to a "shift from the functional annotation of *the* human genome to that of *genomes*" (Méthot 2020, 411). This shift draws from a lesson already familiar to readers of Canguilhem: no organism—and also no genome—exists without an environment, a lesson also stressed in my own work in the case of contemporary research in synthetic biology and minimal genomes, similarly using Canguilhem (Simons 2021).

In Chapter 11, Blasimme uses Canguilhem to criticize a number of discourses on ageing in contemporary scholarship, ranging from "healthy ageing" to "physical frailty" (Méthot 2020, 445). Finally, in Chapter 12, Keuck and Freeborn explore "how exactly Canguilhem's writings figure within the debate on the limits and use of so-called biomarkers in current

medical practice" (470). They are especially intrigued by Richard Horton, editor-in-chief of the *Lancet*, who explicitly mobilized Canguilhem's work in these debates.

The ambition of the volume is manifold: it wants to understand what Canguilhem meant with his concepts; it aims to resituate his work in alternative histories of philosophy and biology; it aspires to defend his work from all sorts of criticisms; it aims to confront his perspectives with numerous new developments in medicine; it wants to use his work to develop novel, contemporary philosophical methods of study; and it aims to highlight the relevance of his work for all kinds of contemporary topics in the life sciences. There is a merit in this pluralism since most likely every reader will find in this volume a chapter of interest to them. However, at the same time, volumes like this benefit from a more explicit reflection on what their intended aim is, or even more broadly, what the aim is of a philosophy of biomedicine.

Though it impressively collects a number of very divergent ambitions and aims, one central tension, embodied by the contrast between the first part and the other two, is left inarticulate: the tension between what Canguilhem's own ambitions were with his biophilosophy and what contemporary philosophers of biomedicine want to achieve. Too often the implicit assumption is a continuity of aims throughout the history of philosophy, as if all philosophers aim for the same goal—often vaguely defined as "understanding life" or "critically assessing medicine"—and at best aim to add a missing piece to the puzzle, without ever questioning the meaningfulness of the puzzle itself. But more plausible is that philosophers in the past simply did not share the same ambitions and understood the aim of their own field in fundamentally different ways. From that realization, the naiveté of simply using Canguilhem for contemporary debates, without first asking what these contemporary debates want to achieve, becomes apparent. Delving into the biophilosophy of Canguilhem, as this volume aims to do, is to delve into the history of philosophy. And as with any good history of philosophy, it therefore also provokes the question of what the aim is of current philosophy of biomedical sciences.

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