

NORMAL AND PATHOLOGICAL HUMANITY MICHAEL HAGNER ON CANGUILHEM, INTERVIEWED BY CAROLINE A. JONES

Caroline A. Jones: *Georges Canguilhem is known to most English-speakers today through the 1991 Zone translation of *The Normal and the Pathological*, which was published with an important introduction by Michel Foucault that secured its rapid uptake here. Can you speak broadly to the importance you ascribe to the later work of Canguilhem, which is not as well known?*

Michael Hagner: The Zone edition made Canguilhem's book famous, but the English translation of *The Normal and the Pathological* was in fact first published in 1978, already with Foucault's introduction. In that very influential text, Foucault argued that Canguilhem developed a philosophy of error, of concept, and of life against a philosophy of sense, of subjects, and of experience. The latter one was represented by phenomenology and existentialism, mainly through Sartre and Merleau-Ponty; the former one was the rationalistic tradition of Bachelard and Canguilhem, into which Foucault integrated himself. What I find striking – and what motivated me to write an afterword to his later essays¹ – is that Canguilhem published most of these essays on medicine after 1978, after Foucault's introduction. In these texts Canguilhem did not quite turn into an existentialist, but – perhaps feeling plagued by his own age, (he was born in 1904) – he reflected about basic questions of medicine, such as health, cure, the concept of nature in medical theory and practice, the power and the limitations of rationality in medicine – and, of course, the human. These essays use examples from history, but in these texts Canguilhem's perspective is that of a philosopher of medicine. This is a dimension in his œuvre leading beyond his epistemological and his historical interests. Whereas in *The Normal and the Pathological* Canguilhem argued that organisms, in the status of health as well as in that of disease, set their own

norms according to the principle of auto-correction, in his late essays he is reflecting about the human subject that experiences its own precarious status in contemplation of death.

CAJ: *You comment that Canguilhem's work can be seen, on the one hand, as a simple history of medicine; yet you also point out his broader concern with the foundations of all organic life. Would Foucault have too narrow a view of Canguilhem as uniquely concerned with the human? With understanding how the normativity of "health" is regulated in the human? Or, as you explore in your introduction to the German publication of these texts, is Canguilhem more engaged with organisms or beings more generally?*

MH: In his introduction, Foucault is primarily concerned with Canguilhem's historical epistemology. He emphasizes Canguilhem's insight that it would have been impossible to constitute the *sciences de la vie* by the end of the 18th century without taking into consideration disease, monstrosity, anomaly, or death. Therefore, medicine is a most important field for the epistemology of the life sciences, yet Foucault would not argue that Canguilhem is mainly concerned with the human. Canguilhem is neither a phenomenologist nor does he develop an anthropocentric philosophy. For him, any human activity, be it sane or insane, is ultimately an expression of the specificity of the organism. In his epistemological writings, Canguilhem wanted to understand the ways in which this organismic specificity is conceived in the historical development of science and medicine. In his late writings,

he pushed back his epistemology and explored how the organism can be seen to cope with its own imperfections. It seems to me that this turn leads to a paradox. On the one hand, Canguilhem shrinks back from the idea of an exceptional position for *homo sapiens*; on the other hand, he claims that humans are arguably the only species that observes and comments on its own physical decline.

CAJ: *Can you speak to the significance of Canguilhem's completing his doctorate with *The Normal and the Pathological* during World War 2 (it's published in 1943)? You discuss his politics as partly a function of disillusionment with the ineffectuality of the Resistance under Vichy. What about the corruption of medicine as a Hippocratic practice during the Reich, would this have been something he was aware of?*

MH: I do not know under which conditions Canguilhem defended his medical thesis in 1943, but the question, which traces were left in his writings by the occupation of France through Nazi Germany and the Vichy Regime, and by his engagement in the Résistance and the assassination of his friend Jean Cavaillès through the Nazis, is a matter of particular interest for me. This is because, in very general terms, I would say that the history of 20th century epistemology and Science Studies can only be understood as a product of its face-to-face confrontation with political totalitarianisms in those days. As far as I know, Canguilhem did not directly thematize the unique barbarism of medicine and biopolitics in Germany, but his experience under Vichy and the Nazi

¹ See Michael Hagner, Georges Canguilhem und das Problem der Medizin, in: Georges Canguilhem, *Schriften zur Medizin*, tr. by Th. Laugstien. Zürich/Berlin: diaphanes 2013, pp. 115-143. Canguilhem's essays have also recently been translated into English: Georges Canguilhem, *Writings on medicine*, tr. and with an introduction by Stefanos Geroulanos and Todd Meyers. Fordham University Press 2012.



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occupation certainly had consequences for his thinking. We can clearly see it, for example in his haunting warning against equating society and organism. He agreed with US physiologist Walter Cannon that there is a wisdom of the body, but he rejected the idea that there is something like a wisdom of society. This position was certainly a consequence of his experiences in the age of extremes and, as I should like to add, contrasts with current flirtations with the “wisdom of the crowd,” for example.

CAJ: *In your text accompanying the German translation of these writings, you comment specifically on the developments of eugenics and cybernetics in confrontation with what it means to be human in the 20th century – this is how that warning against an “organismic society” takes shape, yes?*

MH: In my own work on the history of twentieth century brain research I argued a couple of years ago that one explanation for the success of the cy-

bernetic paradigm after 1945 was that its machine-centered universalism was seen as a welcome remedy against the organism-centered stigmatizing typology of eugenics.² Hence, I was quite relieved, when I learned that Canguilhem rejected any analogy between the organism and society. In his speech to the French organization of the *Alliance israélite universelle*, in 1955, Canguilhem was fully aware of the political background that would be supplied for any discussion of “the issue of regulation in the organism and society,” yet he did not mention eugenics explicitly. This silence may come as a surprise, but I would argue that it is merely the discretion of the epistemologist, who works with conceptual clarification rather than with particular reference to historical acts of terrorism and barbarism in order to reject that equation of organism and society. In the organism all elements exist for the good of the whole, but there’s nothing like this self-regulating system in society. The living individual is characterized by self-regulation and homeostasis, society is not. Society, invented as a tool for the welfare of human beings, is in a notoriously endangered state, the organism is not, unless it is afflicted by sickness.

CAJ: *You identify the relationship between “Self-regulation” and “precarity” in the later Canguilhem. You often use the phrase “Auto-correct”... you must be conscious of its computerized analogy? What is the role of mechanism in Canguilhem’s theory (and your own)?*

MH: True, for Canguilhem, the concepts of auto-correction and self-regulation are the most important mechanisms for the living being. He took these concepts from the German neurologist Kurt Goldstein, who characterized health and disease as two modes of relationship between an organism and its environment. He also adopted Walter Cannon’s theory of homeostasis. Despite all their differences, these two theories (of auto-correction and homeostasis) can be seen as versions of systems theory, which have some striking similarities with cybernetics – though the latter has its reference point in self-regulating machines and computing devices, whereas the former has its reference point in the biological organism. Canguilhem was certainly interested in cybernetics, yet in his seminal 1947 lecture and paper on “Machine and organism” he argued that organisms should serve as models for building machines, and not vice versa.³ This was against the mainstream at the time, and I am quite sympathetic with this view, because it prevents us from technological determinism and the odd idea of conceiving society as a cybernetic feedback mechanism.

CAJ: *What happens, when sickness comes into play?*

MH: Sickness disturbs the functional equilibrium between the organism and its respective environment. The organism is pushed to reset itself on a reduced functional level. Instead of abundant self-realization simple existence be-

² See Michael Hagner, “Bilder der Kybernetik: Diagramm und Anthropologie, Schaltung und Nervensystem”, in: idem, *Der Geist bei der Arbeit. Historische Untersuchungen zur Hirnforschung* (Göttingen: Wallstein, 2006): 195-222.

³ Georges Canguilhem, “Machine and Organism” (1947), translated from the French by Mark Cohen and Randall Cherry in Jonathan Crary and Sanford Kwinter, eds., *Incorporations* (New York: Zone Books, 1992): 44-69.

comes the new standard. But even in this reduced state, auto-correction functions; it operates as the organism tries to establish a new equilibrium, attempting to restore adequacy at a lower level. There will either be recovery or what Canguilhem calls “the emergence of a new order of life.” Disease marks the dynamic field between precarity and auto-correction – neither fully one nor the other. This liminal state prevails until the ultimate precarity, which is death, about which Canguilhem has almost nothing to say until a specific moment in the very late texts.

CAJ: *Would this drive to equilibrium (even in the face of death) be characteristic of all life? Or does the human capacity for higher consciousness render it exceptional?*

MH: In this respect, humans are not exceptional. Living things identify, evaluate, set norms, figure their environment – it is the same with men and animals, even if monkeys have developed no medicine. This is a kind of philosophical anthropology in which the critique of anthropocentrism is clear: there’s not such a big difference between the human and other. As Canguilhem puts it, humans “do not inhabit a higher level of reality than the milieu of the woodlouse or the grey mouse...”

CAJ: *In the 1940s, of course, Canguilhem was writing before the revolutions in molecular biology that transformed medicine after the 1960s, and even in the later writings he resists some of the implications of those new domains.*

MH: I think it is useful to distinguish between his writings from the 1940s, in which he was relying on systems theory of disease, and his late essays, in which he was concerned with other issues. In fact, he did not engage in detail with new developments in molecular biology, immunology, organ transplants, etc., and some commentators have blamed him for this lacuna. They see Canguilhem’s late essays as cowering to certain fashionable arguments against the mechanization of medicine at the time. Indeed, he bemoaned the increasing replacement of doctors’ clinical knowledge of the body with computer readouts. In an age when medicine itself had moved away from the organism (and became in a sense less reliant on “humans” for its practices), Canguilhem rarely failed to take a swipe at such a situation in the later texts. But at the same time he categorically refused to join in the critiques of medicine at the time.

CAJ: *What kinds of critiques were these?*

MH: Well, radical authors such as Ivan Illich made searing critiques of medicine in the 1970s, and advocated returning health practices to the hands of the people – essentially alternative or folk healing.⁴ Canguilhem felt this was premature, that the psychosomatic actually explains very little about the way organisms heal themselves.

CAJ: *Is this because he is thinking about more than the human? His wider view of the organism gives him a much*

⁴ See Ivan Illich, *Medical Nemesis*. London 1974.

more robust faith in autopoiesis and the self-correcting mechanism. It’s somewhat absurd to talk about psychosoma in the woodlouse – although we certainly use the grey mouse to study anxiety’s deleterious effects!

MH: The non-human powerfully balances his theories of the human organism. Canguilhem reminds us of the Hippocratic self-regulating body, but hints to a major difference. Self-regulation in the late 20th Century may no longer have the same meaning as in the times of ancient medicine, because the norms and value orientations have shifted. This is where the radicality of the original doctoral thesis, *The Normal and the Pathological*, returns. There is an *historical* framing of the human and its autocorrecting functions—the concept of health functions to set standards, and as such it thus depends on the context in which it is defined and structured. The capacity for some kind of health lies in the organic system, but the particular design of what that health *is*, cannot be separated from the concrete historical situation. Accordingly, the auto-corrective forces of the organism have to be seen in relation to the diagnostic tools and therapeutic power of medicine in a given historical context. For example, it does not matter if psychosomatic medicine can explain the nature of a given disease – what matters is whether anything psychosomatic can be an effective *practice*.

CAJ: *Neither can health and disease be separated from a much more personal situation, if I read you correctly. As you point out, for Canguilhem, in the end, death comes into view.*

MH: Right, this is the moment when the singularity of man comes into play. Since overly instrumentalized medicine and psychosomatic medicine and naturopathy challenge Canguilhem to criticism, then what’s left? Here we recall that he is a philosopher asking basic questions about human existence. To put it in his own words: “The existence of disease as a general biological fact, and in particular an existential test in humans, raises the not yet convincingly answered question about the precariousness of organic structures.”⁵ This “precariousness” is crucial to the late writing. It is when Canguilhem addresses not just the pathological but *disease* in all of its voracity that he brings in Freud with his concept of the death drive as inherent to the biological organism. (Now scientists have identified this “programmatic drive” even at the chromosomal level, in the dwindling telomeres.) There is a wonderful passage in an essay that is not included in the “Writings on medicine.” In this text, Canguilhem cites Freud on the death drive – but it is not a citation to Freud’s famous papers or lectures but to a personal letter that the psychoanalyst wrote about his own aging.⁶ In this personal musing, the elderly Freud (who would die of a ravaging mouth cancer) longs to no longer need to hold things together, but to let them drift to the inorganic. It is no coincidence that

⁵ Georges Canguilhem. *Writings on Medicine*. New York: Fordham University Press, 2012. <http://muse.jhu.edu/> (accessed December 30, 2013), 41.
⁶ Georges Canguilhem, „Macht und Grenzen der medizinischen Rationalität“, in: idem, *Grenzen medizinischer Rationalität* (Tübingen, edition diskord, 1989), 67. Canguilhem refers to Freud’s letter to the Swiss clergyman and psychoanalyst Oskar Pfister from 11 October 1925.

this kind of thinking appeals to Canguilhem, who is himself experiencing dwindling forces. Now, the finiteness of life is the point: “Death is in life, disease is his character.”⁷

CAJ: *Again, given our interests in this issue-- is this specific to the human?*

MH: Largely. My reading of Canguilhem is that he sees man as the smart animal that perceives and interprets the decline of his powers and looks death in the eye. Freud comes in here as arguing for the authenticity of illness and disease in the dissolution of organismic identity. All that leads to our resigned acceptance of death. We are dealing here with a massive shift of perspective for Canguilhem: for the human, life is a life unto death. Health is never complete and permanent, and the way to its end is inevitable.

CAJ: *That is a remarkable development for the theorist of the normal and the pathological. These would be considered binaries in the early work – mutually constitutive opposites that determine each other in a clinical system. Yet it appears that in these later works they merge with one another as the inevitable function of life: to eventually twine into disease and death.*

MH: This surprising turn to Freud in the late works can be seen as a disillusioned diagnostician who takes up another old doctor as a mouthpiece for his own position, bringing together concepts and experience, illness and fatigue, decay and death, to be adequately reflected. The fact that Can-

guilhem puts the experience of our own perishability into the center of his late essays does not mean that he returns to anthropocentrism. Canguilhem is of no use to phenomenology, in this respect Foucault is perfectly right. Yet he was not so much aware of the convergence of epistemology and (patho) Anthropology in Canguilhem’s late essays, which wanted to come to terms with our own expiration.

CAJ: *Does that expiration remove the human from the animal, by virtue of that very consciousness of one’s drive to die? The yearning to “drift to the organic” or a merging of energies with entropy?*

MH: The inevitability of death is constitutive for all living beings, but we are arguably the only ones who understand and try to overcome that entropy. The cyborg fantasy (that is, the immortality of machines or substitute organs)...

CAJ: *...or, in our age, the related (if bizarre) dream of becoming immortal through a data-upload or “Singularity”⁸*

MH: These would offer no escape for Canguilhem. Quoting F. Scott Fitzgerald, he conceives of our knowledge of death’s inevitability as like holding two incompatible ideas in mind and continuing to function: “You should be able to recognize, for example, that all

8 Ray Kurzweil, *The Singularity is Near: When Humans Transcend Biology*, (New York: Penguin, 2005), argues that ultra-intelligent machines will allow humans to overcome the limits of biology through mechanisms that are mystical as much as technical – so far.

is hopeless and yet be determined to do something about it.”⁹

CAJ: *Can there be a contemporary Canguilhem in philosophy of science? Is it precisely the humanist, mortal theorist of these late writings that we should be reading?*

MH: Some commentators have uttered disrespect for Canguilhem’s late essays by emphasizing two criticisms. First, as we’ve discussed he did not carefully consider recent scientific developments such as the molecularization of medicine; and second, he explicitly rejected certain aspects of modern medicine. Indeed, Canguilhem – like the philosopher Hans Jonas – did not accept the criteria of brain death, and in one of his last texts, he was horrified by the perspective that the experience and judgment of the doctor were more and more replaced by a computer-generated diagnosis. Canguilhem did not directly refer to the monoculture of computational “evidence-based medicine,” but it is remarkable that a contemporary commentator such as Richard Horton, the editor of *Lancet*, again and again refers to Canguilhem in his rejection of this polemical force against clini-

cal practice.¹⁰ Even if we may smile about such an old-fashioned European humanist position, I would argue that neither the connection between local experience and statistical probability, nor the question of the relationship between the doctor and the patient is solved in our age of bio-technological medicine. And given all those discussions on cyborgs and posthumanism, I find it healthy when Canguilhem reminds us that we are those smart animals in a remote corner of the cosmos who have not only invented gnosis – as Nietzsche put it,¹¹ but who also have to realize our own death. It was quite illuminating for me to dig into these later publications, where we can see Canguilhem sitting side-by-side with Freud and his idea of *thanatos*. These are expansions to the brilliant insights about the normal and the pathological that make Canguilhem’s late writings on medicine crucial reading for theorists (and practitioners) of the human.

10 See e. g. Richard Horton’s review of the recently published translation into English of some of these same late essays (note 1), Canguilhem’s *Writings on Medicine in Lancet* 380, September 8, 2012, p. 872; as well as his earlier essays on such as idem, “Georges Canguilhem, philosopher of disease,” *Journal of the Royal Society of Medicine* 88, 1995, p. 316-319, and idem, “Rediscovering human dignity,” *Lancet* 364, September 18, 2004, 1081-1085.

11 Friedrich Nietzsche, *Über Wahrheit und Lüge im aussermoralischen Sinn*, in: idem, *Sämtliche Werke*, vol. 1, Munich, Deutscher Taschenbuch Verlag 1980, pp. 875-890.

7 See footnote 5.