## Canguilhem - The mutual purpose of ethics and science

It is no surprise to find two essays by Georges Canguilhem at the centre of *Science, Reason, Modernity* given the question that inspires and organises the volume as a whole – the question, that is, of how we might 'analyze and diagnose the modern sciences in their troubled relationships with lived reality' (2). Indeed, it is difficult to imagine a more direct, economical and accurate way of characterising the problematic to which Canguilhem devoted himself during the course of over forty years of scholarship; it is an explicit theme in much of his historiographical and philosophical work.

The quality of the relationship between knowledge and life is core to the concerns of philosophical pragmatism, and the thrust of Canguilhem's thought might be considered pragmatist in this sense, alongside Dewey's in this book, for how it seeks to draw 'ethics and science into a shared practice and mutual purpose' (75). But the ethics that explicitly steers Canguilhem in his own characteristic knowledge practice - that is, in his evaluation of scientific concepts - involves something at once more general and more specific than a pragmatic imperative to attend to the situated relevance of truth(s). The imperative at play for Canguilhem stems from what he sees as the ontological distinctiveness of the living: it is the demand to regard this distinctiveness as a normative vantage point for the purpose of evaluation. As a recursive historian, in other words, Canguilhem writes from a position that assumes, first and foremost, the normativity of a biological mode of thought, a mode of thought informed by an organic conception of the world wherein the task of evaluation itself appears intrinsic to existence, as a matter of 'existential security' (187). Canguilhem writes as if this mode of thought had succeeded in affirming its own 'imperialism' against the classical dominance of physics (1975: 95). The fact that many today – even among biologists – would fail to recognise this new imperialism, thereby disproving it by that fact alone, is precisely what makes this attitude the deliberate expression of an ethics, a choice.

In order to appreciate the full import of this choice as ethical, and of this ethics as an imperative, it is necessary to refer this term to the etymological root (ethos) that it shares with the word ethology. Custom, character, disposition, habit – (animal) behaviour. The choice is ethical because it reflects the experience and expression of a margin of freedom, a taking of sides, a philosophical wager in favour of life to defy 'the claim of science to dissolve living beings ... into the anonymity of the mechanical, physical and chemical environment' (189). As we read Canguilhem, however, we cannot but understand the freedom of ethics simultaneously as an expression – the quintessential expression, perhaps – of a biological mode of existence and of life as 'the art of arts' (155). With ethics, in the human animal, the artfulness of life culminates in a distillation of freedom, an extension of freedom to the possibility of transcending the value of biological life per se in favour of immaterial, 'ideal' values (Whitehead, 1968). In the name of such values new possibilities are imagined, new worlds are constructed – as nothing more, and nothing less, than the routine operations of an organism structuring its milieu. There is, in this sense, a fundamental continuity between ethology and ethics: to

acknowledge the ontological specificity of life, and of the human animal in particular, is to become sensitive to ethics as an imperative, as a distinctively human need. And if a need constitutes, for any living being, 'an irreducible, and thereby absolute, system of reference' (190), ethics constitutes the expression of an exquisitely indeterminate – yet equally absolute – need for a system of reference, in relation to which new possibilities might be envisaged and evaluated. There is, in other words, a fundamental continuity between the freedom of the cell and ethics as 'the conscious practice of freedom' (Foucault, 1994: 284), at the same time as the difference of degree that separates them constitutes a giant qualitative leap.

In Canguilhem, the drawing of 'ethics and science into a shared practice and mutual purpose' thus assumes literal, almost tautological connotations. The ethics accounts for the science while the science accounts for the ethics, in a relationship of mutual reciprocity that we might be tempted (and possibly justified) to describe as 'organic'. A similar relationship obtains, I would venture, between the chapters by Canguilhem in *Science, Reason, Modernity* and the book as a whole; his thought lives, 'radiates' (184), at the heart of it.

Yet, in other ways, it is remarkable to discover Canguilhem, or at least the problematic that is so quintessentially, literally his, adopted here as the organising principle around which the work of others – from Kant to Rabinow via Weber, Dewey, Foucault and Blumenberg – gravitates. For it was not long ago that he was mostly known, at least to English-speaking readers, as a peripheral figure, foreshadowing Foucault. A 'precursor', ironically rendered so by Foucault's own reading of Canguilhem's work in his introduction to *The Normal and the Pathological* (Goldhammer, 1996)... a precursor to be read despite, not because of his vitalism and all it implies.

That this situation has so fundamentally changed since the mid 1990s says something important about how our world – and the *milieu* of Canguilhem's thought - has changed during this time. It speaks, among other things, of the existential threat that climate change has come to represent, and of the problem this poses in terms of the concepts we might use (choose to use) to engage with it. This is the concern, for example, in Isabelle Stengers' dramatisation of the difference between Gaia and the Anthropocene as ways of addressing the planet in the context of this situation. Calling it Gaia, she writes, signifies that 'it is, and will remain, a "being", existing in its own terms, not in the terms crafted to reliably characterize it' (2015: 137). The relevant point here, for our purposes, is not that Gaia designates a living being – for Stengers it does not – but rather that 'calling it Gaia' implies and facilitates a certain relationship with its reality, an attitude that we might characterise as vitalist in so far as it affirms the logical and ethical priority of lived reality over its abstraction in knowledge. Accepting the reality of Gaia, specifically against the refrain that 'we need more research' before we can fully believe or engage with it, involves 'actively discarding the norms of distance and detachment that act as mattresses protecting us against ... response-ability' and that justify inaction (2015: 143). It means constructing the problem of climate change in terms of what it signifies for us, namely the possibility of 'brutal extinction' (2015: 135).

The alternative attitudes encapsulated by the concepts of Gaia and Anthropocene illustrate the dilemma Canguilhem attributes to Pascal, who could not or did not want to choose between 'the need for existential security and the demands of scientific knowledge' (187) – except that in view of the possibility of brutal extinction, a possibility real enough based on what we already know, there should be no dilemma. In a more general sense, accepting the reality of Gaia exemplifies what Canguilhem described as 'the vitality of vitalism' (1975), or the sense in which the reference to life provides a recurring form of resistance, a corrective, to the tendency for science to produce self-referential forms of satisfaction, to the dangerous neglect of what really matters.

## References

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