

# History & Theory of Vitalism:

From Descartes to Canguilhem

[ Mini-course by Charles T. Wolfe ]

**14-15 May, 2014 | 14h-18h**

Auditorium FFCUL, C1.3, Lisbon, Portugal

[ No fee but registration is required. Please send an e-mail to [rssantos@fc.ul.pt](mailto:rssantos@fc.ul.pt) ]



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In this 'master class' (without any Master principle!) I try to reconstruct something like a vitalist conceptual tradition, present both in a subterranean form in the Scientific Revolution period, despite the fact that, as I suggest in the "Life" paper (**text 1**), there can be no ontology of Life in this period, and increasingly with the emergence of a science of biology in the late 18th century (and here I ask: what do we do with the growing obsession with 'life science' from the 1740s onwards, with people like Buffon and Diderot - Diderot who in his 1753 *Pensées sur l'interprétation de la nature* dismisses the mathematical sciences as somehow 'done' and asserts that 'life science' is a new revolutionary area [\*]). In the 19th century vitalism becomes something of a dogmatic concept, with people like Hans Driesch (\*\*), but in the 20th century there is a new, less metaphysical form of theory of organism, sometimes with vitalist ambitions, culminating perhaps in the idiosyncratic theory of Georges Canguilhem, himself influenced by Kurt Goldstein (**text 4** and see Ferrario and Bianco's papers - on Goldstein and Canguilhem respectively, in Normandin and Wolfe eds., 2013, and Wolfe forthcoming). And in recent years it is possible to see a new kind of 'organizational' concept emerging in theoretical biology, eg in the work of Moreno and collaborators (\*\*\*), discussed by the philosopher William Bechtel (**text 5**), which is light years removed from metaphysical vitalism, but is perhaps closer to what I have called the 'functional vitalism' of the 18th century Montpellier medical vitalists, with references to concepts such as the 'animal economy' (**texts 2, 3**). I do not argue here that we need to be vitalists, or that mechanistic science (whatever that means) is bad, indeed there has been much good work on mechanistic explanations in recent years, sometimes with reference to biology (\*\*\*\*). And perhaps we should reflect on 'words' themselves (**text 6**) and the problem of how vitalism has been treated and defined (**texts 7, 8**). But nevertheless, I believe a historico-philosophical investigation and evaluation of these episodes - are they are a tradition? a discontinuous tradition ? - helps us have a more diverse, less stubborn and dogmatic conception of the philosophy of biology and its orthodoxies and heterodoxies.

(\*) Diderot, *Pensées sur l'interprétation de la nature*, § IV, in Diderot, *OEuvres complètes*, DPV, IX, 30-31. See for discussion Charles Wolfe, "Epigenesis as Spinozism in Diderot's biological project," in Ohad Nachtomy and Justin E.H. Smith, eds., *The Life Sciences in Early Modern Philosophy* (Oxford: Oxford University Press, 2014), 181-201.

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(\*\*) see the papers in F. Burwick & P. Douglass, eds., *The crisis in modernism. Bergson and the vitalist controversy* (Cambridge: Cambridge University Press, 1992), including on Bakhtin's critique of Driesch.

(\*\*\*) see the many excellent papers by Moreno et al., and also Moreno and M. Mossio's forthcoming monograph on autonomy and organization in biological systems (Springer).

(\*\*\*\*) Malaterre and Braillard, eds., forthcoming

## Texts discussed

1. Charles Wolfe, "Why was there no controversy over Life in the Scientific Revolution?", in V. Boantza & M. Dascal, eds., *Controversies in the Scientific Revolution* (Amsterdam: John Benjamins, 2011), pp. 187-219
2. Jean-Joseph Ménéuret de Chambaud, 'OEconomie Animale (Médecine)', *Encyclopédie ou Dictionnaire raisonné des arts et des métiers*, eds. Denis Diderot and Jean Le Rond D'Alembert, 35 vols. (Paris: Briasson, David, Le Breton & Durand, 1751-1780; reprint, Stuttgart/Bad Cannstatt, 1966), vol. 9, 1765, 360-366.
3. Charles Wolfe and Motoichi Terada, "The animal economy as object and program in Montpellier vitalism," *Science in Context* 21:4 (2008), 537-579
4. Georges Canguilhem, "Aspects of vitalism." In Canguilhem, *Knowledge of Life*, translated by Stefanos Geroulanos and Daniela Ginsburg (New York: Fordham University Press, 2008), 59-74. (First published 1952)
5. William Bechtel "Biological mechanisms: Organized to maintain autonomy." In F. Boogerd et al., eds., *Systems Biology: Philosophical Foundations* (New York: Elsevier, 2007). PDF online : <http://mechanism.ucsd.edu/~bill/research/bechtel.biologicalmechanismsorganization.pdf>
6. Susan Oyama, "Biologists behaving badly: Vitalism and the language of language," *History and Philosophy of the Life Sciences* 32 (2010): 401-423.
7. Scott F. Gilbert and Sahotra Sarkar, "Embracing Complexity: Organicism for the 21st Century." *Developmental Dynamics* 219 (2000): 1-9
8. Charles Wolfe, "Vitalism without Metaphysics?", introduction to *Vitalism Without Metaphysics? Medical Vitalism in the Enlightenment*, special issue of *Science in Context* 21:4 (2008), 461-463

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## Additional (optional)

Roselyne Rey, *Naissance et développement du vitalisme en France de la deuxième moitié du 18e siècle à la fin du Premier Empire* (Oxford: Voltaire Foundation, 2000) (originally a PhD dissertation in 3 volumes, University of Paris, 1987)

Sebastian Normandin and Charles Wolfe, eds., *Vitalism and the scientific image in post-Enlightenment life science, 1800-2010* (Dordrecht: Springer, 2013)

Kurt Goldstein, *The Organism: a holistic approach to biology derived from pathological data in man* (1934) (translation reprint, New York: Zone Books / MIT Press, 1995)

Moritz Schlick, "Philosophy of organic life." In H. Feigl & M. Brodbeck, eds., *Readings in the Philosophy of Science* (New York: Appleton-Century Crofts, 1953), 523-536.

Pascal Nouvel, ed., *Repenser le vitalisme - Histoire et philosophie du vitalisme* (Paris: PUF, 2011)

Monica Greco, "On the Vitality of Vitalism," *Theory, Culture & Society* vol. 22(1) (2005): 15-27.

Charles Wolfe, "Was Canguilhem a biochauvinist? Goldstein, Canguilhem and the project of 'biophilosophy'," in Darian Meacham, ed., *Medicine and Society, New Continental Perspectives* (Springer, Philosophy and Medicine Series, forthcoming)