



Extended Abstract

Spinoza to Darwin via Deacon: Negative and Positive Approaches to (Natural) Evolution

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Introduction: Between Negative and Positive Notions of Naturalism – Spinoza and Deacon

Naturalism, in both its Darwinian and post-Darwinian forms, is concerned with evolution. Evolution requires both something that evolves (the “positive” side of evolution) and some forces that make up the selection pressures that contribute to the elimination of unfit forms (the “negative” side of evolution). In Spinoza's notion of “conatus” I wish to find a metaphor for the “positive” principle of evolution. In Darwin's notion of “natural selection” we find the metaphor for the “negative principle.” Both negative and positive principles are necessary to bring about the possibility of real-life evolution.

In this process, I bring in Terrence Deacon's theory of “Incomplete Nature” (2012). The tension between the “negative” mechanism of eliminating non-survivable processes, and the “positive” mechanism of maintaining survivable processes, might become understandable from a combination of Spinoza, Darwin and Deacon. Perhaps the principle of “conatus” can explain how physical, biological and mental processes share a mode of operation – arise, as they do, from a fixed set of laws of nature. But we also need an explanation of emergence of new laws and new dynamic systems. Darwin provides the tools to understand how negativity shapes the course of evolution, and Deacon helps to bridge the (alleged) gaps between the pre-Darwinian and the Darwinian “domains” of naturalism. His theory of the “absentia” features of nature provides a fascinating starting point for such research.

The potential contribution of Spinoza's metaphysics to evolutionary theory

In “Ethics”, Spinoza attempted to provide the foundations for moral theory by a monistic, naturalistic account of theology. The method used in the process was deductive reasoning, inspired by Euclid, Descartes and Hobbes. It also bears some kinship to the work of Leibniz. In its monistic naturalism, it provides a challenge, but also some much-needed reinforcement, for modern science.

Ethics is often treated as separate from ontology and the natural sciences. But Spinoza saw ethics – normativity – as deriving from ontology and the natural sciences. The importance of this project for modern science and the philosophy of science lies in the naturalistic philosophical synthesis.

The central notion of the book is “conatus” - which is a difficult term but easy to understand. It can be summed up by saying that everything wishes to persevere in its own being. It can refer to Newton's first law of physical motion as well as the evolutionary imperative to survive. In the mental domain, it creates selfishness and intentionality. The “conatus” is not a teleological concept, since it does not postulate an end state beyond itself. But it does give rise to teleology, since if “conatus” wants to preserve in its own being, i.e. to prolong its own survival, this necessitates a struggle against external forces. In this struggle, teleological attachments may develop to things which aid in one's survival. Thus, human beings (and other animals) become attached to e.g. food and sexual reproduction. But the only principle required is the conatus - which is shared by biological and non-biological entities alike.

The materialistic implications of the principle were already developed by Thomas Hobbes, one of Spinoza's sources of inspiration. Hobbes's psychology is one of the most brutally “naturalistic” in the history of psychology. Both Spinoza and Hobbes are thus compatible, in different ways, with the naturalistic research programmes of today. In early modern philosophy, from Hobbes to Spinoza, physics, biology, psychology, morality and politics were seen as extending across a single continuum. We need to recapture this ethos and methodology for today.

But to what extent is “conatus” a useful concept to describe the laws of physics, chemistry and biology? A lot of work needs to be done, and there is no need – or possibility – of rewriting physics to fit Spinoza. Its usefulness to, and kinship with, Darwinian theory, and the study of the human world, is, at least, suggestive. But we need to look carefully at how pre-biological “conatus” develops into biological “conatus”, and how this develops into anthropic “conatus”, to understand how cosmic evolution, up to human beings, is not only possible, but also – in some sense – probably necessary.

To enrich this theory of the conatus, we have to look at contemporary information science, semiotics and complex systems theory. We need to look at the work of evolutionary scientists, especially Deacon's recent work. Doing so will enable us to approach Spinoza in a new way.

Deacon's notion of “Incomplete Nature” and its relationship to Darwinism and Spinozism

Terrence Deacon's new book, “Incomplete Nature” (2012) provides an interesting bridge between the different realms of “dynamics” that exist in the different realms of the natural world - e.g. the pre-biological and the biological, or the non-mental and the mental. Building on the work of others, it provides an interesting (and often terminologically obtuse) synthesis, and a new framework for (non-reductionistic) evolutionary naturalism. Thus, it provides a much-needed injection against the in creep of naïve anti-mentalist reductionism, while simultaneously safeguarding against the rebirth of mysticism.

The book attempts to describe how “although mental contents do indeed lack (...) material-energetic properties, they are still entirely products of physical processes and have an unprecedented kind of causal power that is unlike anything that physics and chemistry alone have so far explained” (quote from the blurb of the book). I will explore this view in some detail, and show how it jives with the monistic world-picture of naturalized Spinozism. I will analyze how emergentism, which emphasises the discontinuity between the past and the present, makes it difficult to bridge physics and chemistry, on the one hand, with biology and mentalism, on the other hand. I will also explore the hypothesis that a “causal role for absence” (p.3) is what is missing for the natural science of the mind. Then I will explore how Deacon's newfound emphasis on absence can be reconciled with the more positive notion of subsistence and selfishness inherent in Spinoza's metaphysics of the “conatus.”

The end result will be an emergentist framework that studies the physical, the biological and the psychological as aspects of evolutionary conatus. I wish to see how Deacon's project and Spinoza's project are compatible, and to explore (in a preliminary fashion) some points of comparison between theoretical philosophy and practical evolutionary science. This provides us new tools and categories for understanding the emergence of complex life-forms, consciousness and end-driven intentionality (“ententionality” in Deacon's parlance). It provides a link between physical natural laws and everything that man has made in the name of culture, language and politics – i.e. the seemingly non-natural lawlikeness of humanity. Thus we are led to a more naturalistic understanding of the motivations, drives and forces that guide us (and an understanding of “us” as naturally evolved “it”).

Conclusion: Why do we need philosophy for natural science?

Metaphysical assumptions need to be perennially checked in order to do good science. I wish to provide, as a methodological tool towards the elucidation of holistic naturalism, a combination of metaphysical (ontological) Spinozism and epistemological Darwinism (via Deacon).

This brings the study of the natural world closer to what Spinoza called “the species of eternity.” The key to this methodology is interpreting the Spinozist “conatus” in the framework of Deacon's book. This framework challenges Cartesian metaphysical assumptions about the inherent dualism of substances, and raises new research questions. Although it won't get us very far into new discoveries – at least not yet - it can at least enable a more robust theoretical framework for bridging the “gap” between non-normative and normative forces - or between determinism and freedom.

References and Notes

1. Spinoza, Baruch. *Ethics*. Oxford University Press, Oxford, U.K., 2000.
2. Deacon, Terrence W. *Incomplete Nature: How Mind Emerged from Matter*, 1st ed. W.W. Norton and Company: New York, USA, 2012.

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