

Review: Günther Witzany (2006) *The logos of the bios* 1. Helsinki: Umweb

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1 Prologue

Witzany's opus is a collection of papers dating back over a decade. At some points, as we shall see, the book is dated, and this review is intended to assist in the preparation of volume 2. This is a fortiori the case since Witzany's work is full both of detailed argument and noble aspiration, and as such deserves our close attention. His range is all the way from molecular biology to string theory, with just a few noticeable lacunae in between. We are going to analyse his argument into the following sections: Desiderata, Linguistics Bioethics/ecophilosophy, Bionoetics and Evolutionary theory before considering actions required.

It is worthwhile immediately to note a paradox underlying all attempts to produce a science, let alone a biological science, that simultaneously accords more dignity to humans and nature; even the statement that we are a part of nature is a third person observation. Likewise, even Witzany's judicious emphasis on intersubjectivity at the expense of solipsism is, paradoxically, a third person observation. The attempt by his compatriot Fritjof Capra to humanise physics and indeed the rest of society through pointing out putative links between quantum mechanics and eastern mysticism neglected that many of the developers of the atomic bomb were aware of these links; its detonation was famously greeted by a line from the Bhagavad Gita. At some point, it is left to us in the sangha, the community, to transmit in a way currently beyond the reach of print what it is to feel in a certain way about nature and ourselves in our relation to nature and each other.

2 Desiderata

Guenther (10-11 - all page numbers given here refer to Witzany's book) is first of all rightly concerned that we feel disposed to understand nature, rather than attempt to subjugate it. This contradicts the program for science due to Francis Bacon that stresses torturing nature in order to acquire her secrets from her. In the tradition of Arne Naess, "The logos of the bios" is a deep ecology project; it is an attempt to motivate stewardship of the biosphere by reference to fundamental considerations. We discuss this further in section 4 below. Secondly, Witzany stresses intersubjectivity at the expense of solipsism. This move is becoming commonplace within modern cognitive science; the notion of a disincarnate mind abandoned some centuries ago, I (2003, forthcoming b) and others in the discipline are stressing that the Cartesian "cogito" is the remote exception in human cognition. Exclusively to identify with the result of the Cartesian meditation with an "ergo sum", apart from being absurd, has perhaps contributed to our destruction of nature. We are most ourselves in action, in relation to nature, and in community. This is the third important desideratum.

The book's viewpoint (ibid.) continues with this emphasis that humans should be viewed as part of a communicative community and stresses that nature is structured and organised in a language-like way. Yet the example of Chomsky in cognitive science hardly is hopeful. The advent of MIT linguistics in that area at the expense of European bionoetics (see section 5) was actually retrogressive and pro Cartesian. Finally, the

book wishes to look at sign processes with respect to a non-reductionistic empirical language. In that vein, it includes a review of Hoffmeyer's essay on the subject of the sign as the basic entity in nature. Its conclusion is that semiotics as applied to nature needs to look at intraorganism, interorganism and between species levels, rather than anything more simplistic.

3 Linguistics

Witzany (134) correctly, and in the company of the *Untersuchungen Wittgenstein's*, inveighs against the early Wittgenstein. I (2003, chapter 3) and thousands of others in the field of computational linguistics (cl), confirming this, have had demonstrated to us that there is no possibility of a formalisation of natural language that is both comprehensive and described with sufficient formal precision as to be computationally tractable. More controversially, he parts company from the Peircean ethos of what we can already call "classical biosemiotics". These theses are developed in his 1995 review of Manfred Eigen's work.

Eigen attempts to use the tropes of language and communication, qua a molecular syntax, for key recombination processes of DNA. However, Witzany argues, this cannot be done without the use of linguistic pragmatics, which he identifies (incompletely) with Austin's "illocution". In fact, perlocution is part of the Austin armoury as well; for example, the perlocutionary thrust of the first part of this sentence is to look it up and include it in Volume 2. In a specifically genetic context (116), he repeats the observation that context determines the "meaning" of the gene, which should be self-evident were it not for the fact that there now are difficulties with naming the gene as its use changes.

So context is a problem for gene expression as for natural language. I and Richard Strohman (forthcoming) have attempted to elucidate this problem. Attempts to do so within cl have been less than wholly successful, and there is a hard road ahead within gene-expression.

4 Bioethics/ecophilosophy

Elsewhere (2004), following classical thinking on the subject, I have discussed the difference between "anthropocentric" (that stress the use value of nature with respect to humans) and "intrinsic value" ecophilosophies. My conclusion is that the distinction is ultimately a false one; the more we are truly ourselves, the more we care for the biosphere. More formally put, the care required to assert what is authentic, and thus intersubjective and/or self-transcendent in the movements of the human psyche generates care

for the biosphere as a natural result. Witzany's ecophilosophy can be read as a more detailed working out of this thesis with respect to the consequence of feeling part of a communicative nexus with the rest of nature. Where he needs support for this is outlined in the next section.

5 Bioethics

I have coined this term to describe the European schools of cognitive science (exemplified by Piaget) that stressed knowledge as itself a form of biological adaptation. The absence of this potentially strong support is sorely missed in Witzany's work. In particular, its absence makes the stated goal of "Biology as an understanding social science" quixotic in the extreme. Along with Piaget, the work of Vygotsky, Mike Cole, JJ Gibson (culturally European both), and Merleau-Ponty will help, just for starters. The salutary anti-cartesianism (if not anti-Kantianism) can be put on a sounder basis.

6 Evolutionary theory

Another quixotic, if well-motivated, goal of this book is the replacement of evolutionary theory with an integration of epigenetics and a theory of language and communication. It correctly points out that several enzymes are needed for the advent of a single new physiologically active substance (60). Moreover, it cites Watson that a new molecular informational functionality is necessary (111). This functionality corresponds to a sculptor's mold (*ibid.*) Some text-editing process must intervene for new species (63). All this is judicious, and exciting; we are going to refine the notion of epigenesis considerably over the next decade. Currently, we are led to believe it boils down to chemical markers in the DNA, a very Cartesian notion. However, the book cites very outdated estimates for the number of mammalian genes (102) and gene differences between species (106). The book's use of the concept of "gene" itself now becomes suspect, and one waits for volume 2 with renewed interest to see this argument doing justice to current fact.

7 Conclusions

This book's major articles are undoubtedly worth looking at, particularly as researchers like Marcello Barbieri are currently publishing major statements in the field. Its major lacunae are the absence of cognitive science/bioethics, and the outdated data in some of the papers. Volume 2 will undoubtedly resolve at least the latter issue

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