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EDITORIAL

Scholastic Temptations in the Philosophy of Biology

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Socrates is generally regarded as the father of western philosophy. His student Plato created the Academy. Diogenes (of Sinope, now in Turkey, but really the first, self-proclaimed "cosmopolitan") is most remembered for living naked and sleeping in a jar (Fig. 1). He lived ascetically, as recommended by Antisthenes, another Socrates student, and abhorred the conventions of knowledge and its relations with power. When Plato was praised for giving Socrates' definition of man as "featherless bipeds," Diogenes brought a plucked chicken into the Academy and said, "Behold! I've brought you a man"—upon which "with broad, flat nails" was added to the definition. Small wonder that Plato thought of Diogenes as a "Socrates gone mad."

Marina Garcés, a professor of contemporary philosophy at the University of Zaragoza and social activist, has recently argued that philosophy today more than ever faces the challenge of keeping alive the "irresolvable tension" between Plato's and Diogenes' radically opposed stances:

> The Academy and the jar; the man of prestige and the stray dog; the organization of all knowledge in its unity and its destruction root and branch; education and de-education; reformist political aspiration and subversion: this is the binary body with which philosophy took its first steps. What has been presented throughout history as two options, as the alternation between two conceptions of the world and knowledge, is in fact a necessary polarity. …On the one hand, knowledge needs to consolidate, to organize and foster contact between different spheres of erudition. On the other hand, questions of knowledge perish when they are no longer exposed to their own limits and to the real problems that nourish them…. (Garcés 2013, p. 43)

Garcés finds the present-day situation of philosophy particularly alarming. Quite apart from the uncertainty that results from the slashing of public budgets (particularly in Southern European countries[1], the transformation of educational institutions to better serve the neoliberal economy, and the ways in which cultural and knowledge markets are developing generally, she identifies a threat for philosophy and "all forms of free thought": the *regimentation of writing* within the framework of "a process of university homologation on the global scale" (2013; p. 39). The changes universities all over the world are undergoing, epitomized by the "Bologna Process" in Europe, are a form of *standardization* that includes the formalization of academic institutions and their teaching and research activities, and gauging their relative merits in keeping with "international standards" (see also Liessmann 2006; Zarka 2010). One key element in this process of regimentation affects writing—probably the quintessential philosophical activity—itself:

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[1] In her "Letter to my Philosophy students (and to all those who are ashamed to continue obeying)" of December 5, 2012, Garcés' writes: "We professors and students exorcize fear of change by acting as if nothing was happening, obeying like automatons the dead guidelines of an institution that now won't give you anything in return, but a devalued degree of a ruined country where you are already redundant, you and 50 % of young people who can't find anything to do. Our obedience shames me" (http://thetuskofthetranslator.wordpress.com/2012/12/05/marina-garces-letter-to-my-philosophy-students/).

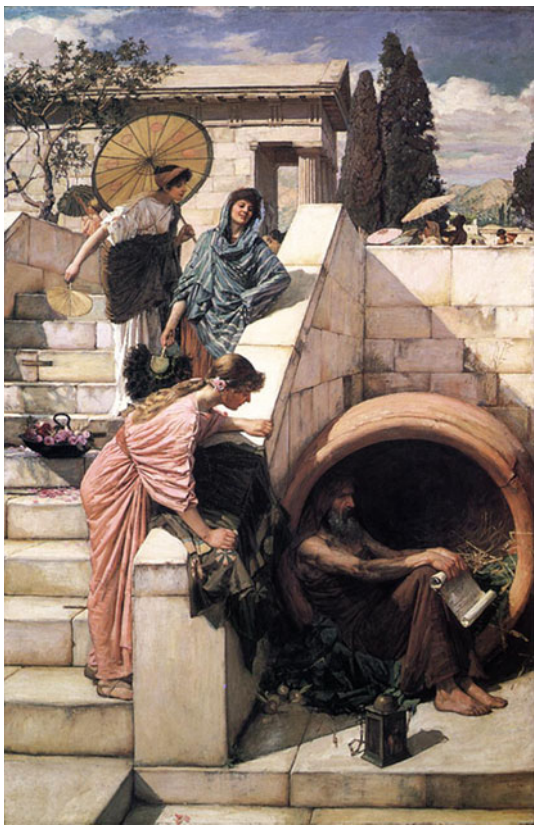

Fig. 1 *Diogenes* by John William Waterhouse (1849–1917), depicting his lamp, jar, and diet of onions

> the diversity of genres and voices, of ranges and types that come together in the sphere of knowledge and that shape it, have been reduced to one thing, the 'paper,' as a unit of measure and vehicle for communication for research in all areas of knowledge. Some of these spheres are less susceptible to the violence of the paper while in others, perhaps, it is simply less noticed because it is just a matter of a change of format in the ways in which people are used to writing. In the case of philosophy, the standardization of writing imposed by the new forms of communicating and publishing knowledge is a veritable dagger in the heart.[2] (Garcés 2013, p. 39)

The imperative to write papers in (academic) English—another indicator of the standardization we witness—adds *linguistic injustice* to the pile of problems many philosophers, other academics, and in/voluntary "independent scholars" face. As the new dominant lingua franca, English undoubtedly benefits humanity as a whole, but its cost as a social good is distributed very unfairly: English native speakers get for free the lingua franca that others must spend much time, energy, and money acquiring (Van Parijs 2011). It is far from clear how linguistic justice could ever be restored, if at all.

The opening up of Western universities from the late 1960s on and throughout the 1970s and early 1980s went hand in hand with "admitting epistemologically and socially diverse voices, problems and practices" (Garcés 2013, p. 43). But this vitalizing movement has come to a halt. "Subjected to purportedly innovative reasoning, we are in fact faced with *a new kind of scholasticism*, an appearance of knowledge that is based only on itself, making this self-referencing the basis and legitimizing source of its power" (p. 43; italics added). I want to suggest that scholasticism has characterized *analytic* philosophy—which many in the Anglo-American world continue to equate with *good* philosophy—since its very inception (Preston 2007). (Analytic) philosophy

> has narrowed itself to a set of conceptual skills, declared war on richness and variety in favor of a 'thin' and all but exclusive preference for argument and logical analysis…. Philosophy now requires 'specialization,' …technique, narrow focus, and rigor rather than vision, curiosity, and openness. (Solomon 1999, p. 3)

In philosophy of science, on which I will concentrate here, scholasticism ultimately has its roots in the *professionalization* of the field initiated by the Vienna Circle (Vienna Circle 1973; Stadler 1997). Carnap (1949, p. 408), for one, carefully demarcated the empirical study of science as "the body of actions carried out by certain persons under certain conditions" from what he and others in the Circle thought of as the only proper concern of philosophy of science, viz. the "logical analysis of the body of accepted scientific theories." In becoming "logical-analytical," the field declared its autonomy from both the sciences themselves and historical, social, and other empirical studies of science. Its intellectual integrity was enhanced by the reliance on symbolic logic—a new, fertile discipline that "did not depend on mastering vast amounts of empirical information either from the sciences or about scientific activity" (Thomas Nickles in Callebaut 1993, p. 35). As an (undoubtedly unintended) consequence of the Vienna Circle's restrictive definition of philosophy of science, later generations of philosophers, including some current philosophers of biology, felt/feel licensed to exercise their analytic skills pretty much ad libitum (Preston 2007)—mostly in response to other philosophers (Kitcher 2012), sometimes with little regard for the actual science (Hull 1969) or its societal context (Kitcher 1993). Many young philosophers of biology I know prefer to reflect on Monty Python or soccer—maybe signaling, "I am just like any

[2] Even in philosophy, writing books nowadays tends to be downgraded to an "extemporaneous" activity by the powers that be. Busy, tenured philosophers who struggle for years if not decades to complete their one book, often unsuccessfully, are legion.

other ordinary person"—to, say, politics (with the exception of science policy issues pertaining to their own fate), which is viewed as a private affair. Considering themselves as professionals very much like engineers, medics, and scientists—experts in a narrow domain like "philosophy of function in the Millikan tradition"—they have abandoned any broader intellectual ambitions. Maybe the professionalization of a field inevitably leads to its "depoliticization, a withdrawal of intellectual energy from a larger domain to a narrower discipline" (Jacoby 1987, p. 147). Their retreat to the "icy slopes of logic" certainly helped most of the logical positivists who fled the Nazi horror in Central Europe to accommodate quickly to the Cold War atmosphere in the US, their new homeland (Reisch 2005).

The irony is that the Vienna Circle's self-imposed regimentation occurred in a geographical and temporal frame that was perhaps more conducive to high-level scientific, philosophical, and artistic creation than anything seen before or after in human history: pre- and post-World War I Viennese *bohemia*. As Russell Jacoby (1987, p. 28) has pointed out,

> Fragile urban habitats of busy streets, cheap eateries, reasonable rents, and decent environs nourish bohemias. These can be easily damaged by economic depression, prosperity, urban renewal, expressways, slums, or suburbs. When this delicate environment is injured or transformed, the "surplus" intellectuals do not disappear, but disperse; they spread out across the country. The difference is critical: a hundred artists, poets, and writers with families and friends in ten city blocks mean one thing; scattered across ten states or ten university towns, they mean something else.

Jacoby had mostly New York's Greenwich Village in mind, but his diagnosis is certainly valid more generally, applying, mutatis mutandis, to Vienna, Budapest's Cafe New York (Marton 2006), Paris' Saint-Germain, Petrograd's Stray Dog Cafe (Porter 1988), as well as a few other locations. "Bohemian intellectuals," Jacoby specified,

> require the streets, cafes, and bars of urban civilization to escape the burden of urban civilization: work and routine. Alfred Polgar, an Austrian writer, once offered a "theory" of Cafe Central, a favorite haunt of pre-World War I Viennese intellectuals and bohemians; he called it an "asylum" for those unfit for life, those who renounced or have been renounced by "family, profession, party." It is a form of "organization for the disorganized." Albert Salomon, a refugee scholar from Germany, concurred, dubbing the bohemian coffee house "the salon of homeless thinkers, poets, and scientists, the drawing room of underpaid writers." (pp. 28–29)

"Thinking and dreaming," Jacoby was convinced, "require unregulated time; intellectuals perpetually lingering over coffee and drink threaten solid citizens by the effort—or the appearance—of escaping the bondage of money and drudgery" (p. 29). Budapest's bohemia, to take but one example, yielded scientists of the stature of Leo Szilard, Edward Teller, John von Neumann, and Eugene Wigner, among others. Szilard and Wigner were definitely not behaving "scholastically" when they talked Einstein into trying to convince President Roosevelt to enter the nuclear arms race with Germany (Marton 2006).

The dissident sociologist C. Wright Mills (1916–1962) investigated the "professionalization of philosophy" in the US in his Ph.D. dissertation, documenting the replacement of the lawyers, librarians, and scientists—the "relatively free intelligentsia" that once constituted US philosophy—by full-time philosophy professors with their own organizations and journals in the twentieth century. Mills praised the pragmatist philosopher John Dewey (1885–1952) as "the last public philosopher, a thinker whose devotion to a democratic audience and 'liberal and free' knowledge set him against the professional drift" (Jacoby 1987, pp. 147–148). As a "publicist," Dewey lamented philosophical scholasticism:

> The monastic cell has become a professional lecture hall; an endless mass of "authorities" have taken the place of Aristotle…. *Jahresberichte*, monographs, journals without end occupy the void. …If the older Scholastic spent his laborious time in erasing the writing from old manuscripts… the new Scholastic …criticizes the criticisms with which some other Scholastic has criticized other criticisms. (Dewey, "The scholastic and the speculator," 1891–1892, quoted in Jacoby 1987, p. 148)

How would Dewey have reacted to the rogue publishers who nowadays clutter our e-mail boxes with calls for papers one has to pay for, to appear in journals with bizarre titles that no serious academic ever wanted in the first place? Maybe he would have recommended, "Publish *and* perish!"

In his latest book, *Preludes to Pragmatism: Toward a Reconstruction of Philosophy*, Philip Kitcher, the current John Dewey Professor of Philosophy at Columbia University, revisits classical pragmatism's impulse to reform and yearning for "reconstruction in philosophy" (Kitcher 2012; see Dewey 1948). Like the logical positivists, the classical pragmatists were "suspicious of the idea of timeless philosophical problems, demanding to be tackled in each generation; both suppose that the deepest philosophical challenges of an age depend on the previous evolution of human life and culture" (pp. xii–xiii). Kitcher agrees; for instance, he is inclined to think that

> were Descartes to be resurrected among us, he would be puzzled by the legacy of his questions in contemporary epistemology—and far more interested in the neglected issue of how to provide access to reliable information in a world awash in potential sources (the "Google/Wikipedia problem"). (p. xv)

Whereas positivists defined "significance" in semantic terms, the pragmatists were "out to focus philosophy on issues that matter to people" (p. xii), a goal Kitcher wants to revive. Against this background, he criticizes "a pattern of philosophical activity that is thoroughly familiar":

> You start with an everyday concept, as it might be *knowledge*, and a bold innovator proposes an analysis of that concept, laying down conditions that are intended to be necessary and sufficient. Others react to the proposal by questioning the terms used in providing the analysis (urging that they are unclear, inexact, or whatever) and, more popularly, by putting forward examples intended to show that the suggested conditions are not necessary or not sufficient. These examples are sometimes grounded in ordinary usage about more-or-less ordinary situations, sometimes in predictions about ordinary usage with respect to quite extraordinary (even bizarre) situations. They may force a long series of revisions to the analysis originally proposed. (p. 198)

This kind of enterprise has been questioned on a variety of grounds, including that in keeping with evolutionary ideas, "nothing outside the realm of abstract constructions, such as a geometrical circle, has anything like an essence to be captured in an explicit definition" (Giere 2006, p. 53). On Carnap's account of explication, an explicatum should be (1) (somewhat) similar to the explicandum in conforming to prior usage; (2) exact, and forming part of a system of scientific concepts; (3) fruitful[3]; and (4) as simple as possible. Assessed in these terms, Kitcher argues, the familiar pattern of philosophical investigation is askew in two ways: it considers a single, isolated concept rather than its role in a system of concepts; and it privileges agreement with prior usage to the neglect of the future uses to which the concept is to be put. To take an arbitrary example: How general is the concept of replication, or should it be? Replication need not occur via DNA or RNA. How else could it occur? "One might be able to come up with dozens of science fiction examples. The problem is finding a principled way in making these decisions—where to draw the line and on what basis. This problem is endemic to linguistic analysis" (Hull et al. 2001, p. 563).

Philosophers of biology, Kitcher goes on to argue, often tacitly employ a "surrogate form" of the familiar pattern in which the judgments of biologists replace the intuitions of the ordinary language user.

> Instead of dredging counterexamples to proposed analyses from the judgments of the folk, the philosopher of biology canvasses biological practice for cases that are at odds with the analysis he/she wishes to oppose. In doing so, the same fundamental divergence from Carnapian principles of explication is often present: conformity with expert usage is the be-all and end-all of the enterprise, and little or no attention is given, either to the systematic connections with other biological concepts or with the purposes to which the concept might be put. (p. 197)

Kitcher discusses attempts to provide definitions of "gene," "species," and "fitness," and some of the conceptual proposals at the heart of the units of selection controversy, and finds them all wanting (pp. 197–209). He concludes:

> Lost in Wonderland, Alice asks the caterpillar which way she should go. To which the caterpillar replies that that depends very much on where she wants to go. Like Carnap, the caterpillar offered wise advice. Philosophers of biology (and philosophers of science and philosophers generally)—who, like Alice, are often lost in Wonderland—should heed it. (p. 209)

Other philosophical "problems" could be analyzed (away) by similarly applying Carnap's method of explication, including the "Gettier problem" (objections to the traditional analysis of knowledge as justified true belief; Shapere 1984, p. 244). Featherless bipeds remain ubiquitous. And there are, of course, many other ways of being scholastic in philosophy of biology—for instance, systematically mistaking Dawkins' thin version of evolutionary theory for the real thing because it's easier. We are back to Garcés' observation that academe, when attempting to be self-sufficient, dies of "self-absorption."

What about the "wild side" of philosophy, represented by figures such as Diogenes, Nietzsche, Wittgenstein, Feyerabend, or, today, Žižek? It is endangered too:

> The wild side, when putting an end to all and any dialogue with the extant social institutions and forms of knowledge, is dissipated in personal postures and particular micro-worlds that easily break off communication. Then again, this 'wilderness' outside of educational institutions is no longer a true outside but

[3] On Carnap's undifferentiated picture of the sciences, their principal aim is to identify laws of nature. Given the problems with "biological laws" (see, e.g., Sober 1997), Kitcher suggests instead that "we conceive of the aims of the sciences in terms of the provision of answers to significant questions" (i.e., pragmatically), "where the sources of significance are various, sometimes practical, sometimes in terms of the satisfaction of disinterested curiosity" (p. 197).

> one that is densely articulated, dominated by market forces and their corresponding dynamics of power, which make it very difficult for unprotected thinking and creation to survive. (Garcés 2013, p. 43)

The difficulties in keeping alive Suhrkamp Verlag, which for decades has been the flagship of artistic, philosophical, and scientific avant-gardism in German-speaking countries, are but one illustration of this.

Are we going to obey forever, or resist asphyxia?

The issue opens with a conversation on the modeling of emergence between historian of science Oren Harman and Stephen Grand, who studies biologically inspired artificial intelligence. According to Grand, in order to qualify as "emergent" a phenomenon requires simultaneity, massive parallelism, circular causality driven by nonlinear relationships between the parts, and self-maintenance. Next is a colloquium on Sterelny's (2012) latest book, *The Evolved Apprentice: How Evolution Made Humans Unique*, a quest for an explanation of human evolution that integrates anthropology, ethology, evolutionary biology, genetics, psychology, and sociology, with Stephen Downes, Philip Gerrans, and John Sutton as sympathetic challengers, and Sterelny's self-critical response. An additional short article deals with the prospect of theoretical progress in ecology by greater clarification of potential ecological state variables (Shrader-Frechette).

Six longer articles deal with a number of evolutionary-ecological issues as well as methodology. Centering on human motives as psychological mechanisms leading to behavior that solves evolutionarily important tasks in the human niche, Aunger and Curtis discuss eight human needs that should ground a list of human motives they label "lust, hunger, comfort, fear, disgust, attract, love, nurture, create, hoard, affiliate, status, justice, curiosity, and play." Addressing the evolutionary emergence of human personality, Fellmann and Walsh argue that natural and sexual selection ought to be supplemented by a third form of selection, "emotional selection," which involves reconstructing selection out of subjective qualities and showing how emotions enable human forms of life that are relevant for the cultural level of cooperation marking our species. In his article, Gross points to the issue of "selective ignorance" in modeling and discusses criteria for model utility. Reflecting on the Cambrian Explosion, Trestman argues that "basic cognitive embodiment," a cognitive toolkit for embodied, object-oriented, spatial cognition, is a practical necessity for control of a large, mobile, complexly articulated body in space. He relates the complexification of animal bodies to the complexification of perception, cognition, and behavior in a way that should help to enrich our pictures of both the Cambrian Explosion and the deep evolutionary origins of the mind. Valles argues for the adoption of Dobzhansky's definition of traits as (just) "semantic devices" that artificially impose order on continuous biological phenomena, elaborates on this by distinguishing between trait validity (compliance with Dobzhansky's trait definition) and trait utility (usefulness of a trait), and demonstrates that even broad or heterogeneous traits (made up of multiple sub-traits) can qualify as valid and useful. Yakubu investigates the theoretical heuristic of assuming distinct alleles (or genotypes) for alternative phenotypes commonly applied in Modern Synthesis evolutionary biology, and suggests that the assumption of contrasting genotypes for altruism and selfishness in our "phenotypic gambit" is inconsistent with the empirical data when viewed in the light of today's post-Mendelian understanding of gene expression.

In a discussion piece, Quayshawn Spencer contests Kaplan and Winther's recent view of human "race" in this journal (*Biol Theory* 7. doi:10.1007/s13752-012-0048-0, 2013). He argues instead that biological theory and data can be used to legitimately infer an ontological view of race that is not a reification, and considers race to be both socially constructed and biologically real. A report on the Second European Advanced Seminar in the Philosophy of the Life Sciences, "In vivo, *ex vivo*, in vitro, *in silico*: Models in the Life Sciences" (Baetu et al.) completes the issue.

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