

READING FEYERABEND BETWEEN PHILOSOPHY OF SCIENCE, HERMENEUTICS – AND GOD

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This essay seeks to make the case for reading hermeneutic philosophy of science with Feyerabend. In addition, there is the question of science, as Nietzsche raises this question along with Feyerabend's programmatic recommendations for traditional philosophy of science. Including a discussion of method in history as in theology and philology, including Nietzsche's hermeneutics, this essay reviews Feyerabend's exchanges with Lakatos along with the resistance of mainstream philosophy of science to hermeneutics as such. A discussion of Feyerabend's 'gods' engages what he invokes as ontological abundance as well as his criticism of the limitations of Popper's critique of Parmenides requiring both historical/historiographical context, an understanding of science in practice, via a contextualization of Schrödinger, and via Plato's epistemology along with Duhem on experiment and Riegler on style, crucial for Feyerabend on the notion of 'progress,' key for Lakatos and others, in art and science.

Keywords: Lakatos, Nietzsche, classical philology, hermeneutic philosophy of science, ontological pluralism

ПРОЧТЕНИЕ ФЕЙЕРАБЕНДА: МЕЖДУ ФИЛОСОФИЕЙ НАУКИ, ГЕРМЕНЕВТИКОЙ И БОГОМ

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В этом эссе я пытаюсь обосновать необходимость прочтения герменевтической философии науки вместе с Фейерабендом. Здесь также ставится вопрос о науке, который возникает и у Ницше, и в программных тезисах Фейерабенда о традиционной философии науки. В этом эссе, включающем обсуждение метода в истории, теологии и филологии, в том числе герменевтики Ницше, рассматривается переписка Фейерабенда с Лакатосом, а также сопротивление господствующей философии науки герменевтике как таковой. Обсуждение «богов» Фейерабенда включает в себя то, что он называет онтологическим изобилием, а также его неприятие ограниченной критики Парменида Поппером, требующей как исторического/историографического контекста, так и понимания науки на практике через контекстуализацию Шредингера, эпистемологию Платона, идеи Дюгема об эксперименте и теории познания, Риглера о стиле, решающих для понимания Фейерабендом понятия «прогресса», ключевых для Лакатоса и других в искусстве и науке.

Ключевые слова: Лакатос, Ницше, классическая филология, герменевтическая философия науки, онтологический плюрализм



Es giebt keine alleinwissendmachende Methode
der Wissenschaft!

Nietzsche, *Morgeröthe*, §635

Es ist immer noch ein metaphysischer Glaube,
auf dem unser Glaube an die Wissenschaft ruht...

Nietzsche,
Zur Genealogie der Moral, III: 24

Nicht der Sieg der Wissenschaft ist das, was unser
19tes Jahrhundert auszeichnet, sondern der Sieg
der wissenschaftlichen Methode über die Wissen-
schaft.

Nietzsche,
Kritische Studienausgabe, 13, 442

The Case of the Missing Dialogue

Paul Feyerabend (1924–1994) dedicates a fair amount of time to offering words of advice to readers attempting to understand him or otherwise for ‘specialists’ in need of ‘consolation.’ He also tells us, repeatedly, that in the case of *Against Method*, both with respect to its style and its content, the book itself remains part of a jointly conceived project. The original plan had been both *dialectically*, in a Hegelian sense as Imre Lakatos (1922–1974) would understand the reference, and, above all, *dialogically* conceived. As philosophic form, Feyerabend argued that the dialogue approximated the life of the natural sciences [Feyerabend, 1991]. Thus constituting an informal ethnography of science, it is the personal exchange that takes place at conferences, or via ‘letters to the editor and faxes’ (updated today with email and texts, and online communications), that permits us to understand scientific papers and books as these “not only lag behind, [but] cannot be understood without this occasionally rather shapeless form of discourse.” [Ibid., p. 164] The dialogue is also a fiction with a ‘good conscience,’ a ‘reconstruction’ in place of real events, or after the fact, a framed set piece presupposing partners and an audience. Thus Galileo composed dialogues in Plato’s mode (including Plato’s *Politeia* and the *Timaeus*). This is part of a broader philological question (matching the Homer question) (see [Nietzsche, 1995, pp. 514, 613–632], for discussion [Babich, 2020, pp. 15–48]). One part of what Feyerabend thus explains as a two part exchange, Feyerabend’s *Against Method* should have been read alongside the *For Method* riposte of Lakatos, who died the year before the 1975 publication of the first edition of *Against Method*, leaving the book a perpetual torso.

The claim is not contradicted but it is complicated by several editions of the book, including a posthumous fourth edition, introduced by Ian



Hacking, citing Jean Largeault's review assessment: "more than a book: it is an event" [Hacking, 2010, p. vii]. Compounding hermeneutic efforts, there is an identically titled 1970 essay [Feyerabend, 1970]. Noteworthy in this constellation, likewise in 1970, Feyerabend contributes his *Consolations for the Specialist* to a collection featuring Thomas Kuhn along with Margaret Masterman's paradigmatic disambiguation of Kuhn in addition to Lakatos on *The Methodology of Research Programmes* and Feyerabend [Lakatos and Musgrave, 1970], with a German translation of Lakatos' essay adding the Popperian signifier 'Falsification' [Lakatos, 1974a], suggesting intersecting projects. (Scholars rightly track the differences, see [Collodel, Oberheim, 2020].)

The Feyerabend who moved in constellations or 'collages' of ideas just to note his enthusiasm for Dada and, given the proximity of Berkeley to the Bohemian Grove, not less for inviting Satanists to speak to his students (for fees about which exorbitance he would complain to Lakatos) was committed to 'epistemological relativism,' *faute de mieux*, a deficit inasmuch as relativism is branded as wrong-headed in advance and which can only be weakly – suspicion of relativism is hard to shake – redefined as "ontological pluralism."

Feyerabend was dedicated to pluralism (what he called anarchism) from *Against Method* and *Science in a Free Society* to his posthumous *The Conquest of Abundance* [Feyerabend, 1999] as it might have been his own plan to combine this with – a question which can only be resolved by a critical *Nachlass* edition, certainly this would accord with his own account – his likewise posthumously published *Naturphilosophie* ([Feyerabend, 2009], in English [Feyerabend, 2016]).

Feyerabend wrote and published in English and an arguably necessary critical hermeneutic reading between Feyerabend's Austrian-German texts and Feyerabend's English (in which he rightly took idiomatic pride) has yet to be undertaken. English was also the language shared between the Austrian, Feyerabend and the Hungarian, Lakatos (see [Motterlini, 1999] and cf. [Motterlini, 2002a]). But reading Lakatos' "Lectures on Scientific Method" as if one might have been listening outside the lecture hall as Feyerabend recalls that he listened to Lakatos, can seem to corroborate Feyerabend's account of Lakatos' role in instigating *Against Method*. Part of this inspiration includes Lakatos' work on mathematics as on science and research methodology, along with his programmatic and Hegelian conviction regarding a 'rationally reconstructed' history, bracketing the ontic details of historical fact, refined as a kind of Lacanian 'real' history, reconstructed in a progressive (i.e., 'rational') as opposed to a regressive, 'pseudo'-scientific sense, thereby engendering the positive construct of a definitively *scientific* 'history' of science. (See [Lakatos, 1968; 1976; 1978]. And see [Gavroglu et al., 1989], and [Ropolyi, 2002]). I will come back to the complex conception of a scientific history in connection with Alois Riegl's style. (See [Riegl, 1901] and in English [Riegl, 1985] and for a grammati-



cally attuned discussion of philology and art [Sauerländer, 1983] on style and on Nietzsche on Homer [Babich, 2010, here: 348f]).

The dialectical scheme of the book that never was to be between Paul and Imre emerges through a reading of their letters. Thus Matteo Motterlini introduces *The Lakatos-Feyerabend Correspondence (1968–1974)* by quoting Feyerabend as the clearest and best exposition of “the origin and scope of his and Lakatos’s joint project”:

I was to attack the rationalist position, Imre was to defend it, making mincemeat of me in the process. Taken together, the two parts were supposed to give an account of our long debate concerns the matters that had started in 1964, had continued in letters, lectures, telephone calls, almost to the last day of Imre’s life and had become a natural part of my daily routine. ([Feyerabend, 1975, p. 15], cited in [Motterlini, 1999, p. 119])

Reconstructions are conjectured, invented: editors make them up. Thus historically, rigorously speaking, evaluated in terms of “factual” or ontic accuracy, editorial reconstructions can only fail. The failure is not on the level Lakatos intended, i.e., the failure is not “rational” nor is it a failure on the level of a coherent book collection – does it make sense? does it read well? (Cf. [Lakatos, 2002] and [Motterlini, 2002a], as well as [Motterlini, 2002b]). Thus we still need a critical edition.

It is essential to read between Lakatos and Feyerabend to understand Feyerabend’s allusions to Marx and not less to Hegel (references to Kierkegaard may also feature in this tension). (See, for example, specifically relevant to “Russian language literature on Lakatos’ Hungarian background,” [Lynch, 2018, p. 57] as well as [Dusek, 2015]. Largely concerned with Kuhn and Popper and ‘Science’ on [Feyerabend, 1977], see [Franklin, 1977] and including a reply from Suchting [Suchting, 1978] useful for the debate on anarchism in [1982]).

Lakatos’ archives provided the material for Motterlini’s compilation of the *Lakatos-Feyerabend Correspondence*. But this happenstance is a matter of accident and good luck. All the material we have is per force the material that has been preserved as Goethe already complained, as Friedrich Kittler cites Goethe:

Literature is the fragment of fragments; the least of what had happened and of what had been spoken was written down; of what had been written down only the smallest fraction was preserved. [Kittler, 1987, p. 105]

If email can seem to change everything along with social media, the hermeneutic advantage of an exchange of letters remains (cf. [Arnold, 2018]). As Motterlini tells us:

Feyerabend recalls that ‘Imre and I exchanged many letters about our affairs, ailments, aggravations and most of all the recent idiocies of our colleagues. [...] Cambridge University Press wanted to publish our letters, but could not: as usual I had thrown away Imre’s part of the corre-



spondence. Only a few postcards survived as bookmarks, or to cover holes in the walls of my house.’ [Motterlini, 1999, p. 119]

The present author corresponded with Feyerabend in the late 1980s and early 1990s and there were in addition telephone calls, dozens, perhaps hundreds of those. (I have yet to organize my records and although I composed on a computer, I kept no copies of my letters. Nor did I take Feyerabend seriously when he suggested I edit/publish the typed manuscripts he sent on his behalf.)

In their correspondence, Lakatos and Feyerabend enjoyed the temperamental advantage of irony toward one another, enhanced by their happy malice towards what Feyerabend recounts as “the recent idiocies of our colleagues,” including a dismally dismissive sexism when it came to the ‘girls,’ as they referred to students, assistants, and colleagues.

Although a trigger from today’s perspective, this same sexism articulates the conclusion to Feyerabend’s 1970 “Against Method,” defining science as a woman (not unlike Nietzsche’s what-if metaphor supposing truth as a woman – “*Vorausgesetzt, dass die Wahrheit ein Weib ist...*” [Nietzsche, 1980]) Seemingly elaborating Nietzsche’s invective against clumsy philosophical dogmatists, Feyerabend writes: “We can turn science from a stern and demanding mistress into an attractive and yielding courtesan who tries to anticipate every wish of her lover.” ([Feyerabend, 1970a, p. 92], and the courtesan becomes a “pussycat” in [Feyerabend, 1970c, p. 229]). Feyerabend repeats the provocation eleven years later (think in a different direction of Kate Manne’s *Logic of Misogyny* [2017]) in *Problems of Empiricism*, 2:

Once, long ago, Lady Reason was a beautiful, strong, helpful though somewhat overbearing Goddess of research. By now her lovers (or should I rather say, pimps?) have turned her into a garrulous but toothless old woman. [Feyerabend, 1981a, p. 246]

The ‘toothless old woman’ is not an allusion to Nietzsche (although the sentiment echoes in both *Thus Spoke Zarathustra* and *Beyond Good and Evil*) but channels a then- and still-popular masculinist sensibility (in a recent lecture in Weimar, my slides included Edmund Dulac’s 1909 illustrated verse from the *Rubaiyat of Omar Khayyam*: ‘You Know, My Friends, How Bravely In My House For A New Marriage I Did Make Carouse: Divorced Old Barren Reason From My Bed, And Took The Daughter Of The Vine To Spouse.’)

Feyerabend asked Lakatos if he might persuade Karl Popper to reply and the imagined idealization of Popper as target/interlocutor explains some of the challenges of *Against Method*. Broader than the issue of interlocutor (Lakatos or Popper) is the question of *method*. Given Feyerabend’s attention to Duhem and to the context of Galilean science, ‘method’ would include theological or scholastic method (See on this [Loneragan,



1971] and [Burt, 1947]) as well as historical method – see Butterfield and Crombie ([Butterfield, 1931] and [Crombie, 1971], relevant for classical history of science, and see [Simiand, 1985] as well as for a sense of context and further references, [Bos, 2012]), just to note Feyerabend's own references.

In addition, the question of method includes 19th century philological method (for a broader sense of philological method than is conventional see [Benne, 2005] and [Babich, 2020] and, more broadly regarded, [Fulk, 2016]). Critically, given the intersection of Feyerabend's interest in Homer and Parmenides and Xenophanes, featuring formulae and rhythmic composition, Nietzsche turns out to be more than relevant (see [Babich, 2015a] and [Babich, 2015b; 2020]) in addition to the need to supplement with Heidegger's discussion of history and hermeneutics in his 1927 *Sein und Zeit* along with Gadamer ([Gadamer, 1960]. See, if not specifically an engagement with Gadamer and Feyerabend, [Hali-ović, 1998] but specifically engaging Gadamer and Feyerabend along with Kuhn and Lakatos, [Ginev, 2016, 98ff]).

What is not to be disputed is that there was a lot of discussion of 'method' *per se* – Peter Medawar had, just around the time of Popper's success challenged the notion of a single scientific method, as did Rom Harré terribly subtly, by way of the use of the plural in his title *Philosophies of Science* (see for references and discussion, [Babich, 2015b] and [Babich, 2010]), and for a summary concentrating on chemistry, the introductory chapter to [Gauch, 2003]. On the definition of science as such, note the challenges in the context of philosophy of chemistry along with geology and biology (cf., again [Babich, 2010] along with [Castillo, 2013; Bauer, 1992]) and on science textbooks and philosophy of science [Blachowicz, 2009]). Thus I have argued, along with Dimitri Ginev and the Irish mathematician-physicist, Patrick Aidan Heelan (1926–2015) who was Erwin Schrödinger's assistant in Dublin, and who argues the case for Galileo and Luther [Heelan, 1994] and Nietzsche [Heelan, 1999], that we need hermeneutics not only for Feyerabend's philosophy of science but for Heidegger's and Nietzsche's philosophy of science [Babich, 2017; 2023].

Beyond method and its complexities, Feyerabend's problem concerns philosophy of science, arguing with some sarcasm, that

we must confess that much of contemporary philosophy of science and especially those ideas which have now replaced the older epistemologies are castles in the air unreal dreams which have but the name in common with the activity they try to represent, that they have been erected in a spirit of conformism rather than with the intention of influencing the development of science, and that they have lost any chance of making a contribution to our knowledge of the world. [Feyerabend, 1970b, p. 172]



Analytic or philosophy has few issues with sarcasm. Yet Feyerabend's claim ticks the wrong boxes as he continues parenthetically:

The medieval problem of the number of angels at the point of a pin had some rather interesting ramifications in optics and in psychology. The problem of "grue" has ramifications only in the theses of those unfortunate students who happen to have an engruesiast for a teacher. [Feyerabend, 1970, p. 172]

The intervening years have confirmed the 'gruesiast' point Feyerabend was making but, if it may be argued that nearly every scholar interested in philosophy of science might agree with some version of Feyerabend's claim that philosophy of science needs history, he argues, contra philosophy of science,

the remedy needed is quite radical. What we must do is to replace the beautiful but useless formal castles in the air by a detailed study of primary sources in the history of science. [Ibid., p. 183]

Now we may think that most philosophers of science today are 'already' doing that but this is not so if they are are not engaging philosophy of science *hermeneutically*. Overall, our temperament has changed such that today we favour the bullet point, essayistic concision, the analytic takeaway. Key for Feyerabend, here thinking of Crombie on Grosseteste as well as Jaki on Duhem and others, remains the comprehensive reading of primary sources. In context.

Nietzsche's contention with respect to the 'triumph' of method (see epigraphs above) should be radicalized reading Feyerabend's rehabilitative reflections on Stone Age astronomy in his *Philosophy of Naure* (see especially the first chapter of [Feyerabend, 2016]) together with Feyerabend's efforts to contextualize Parmenides contra Popper arguing via Max Planck but also via continuity (here there is a silent reference to Erwin Schrödinger) with reference to Weyl as Feyerabend cites his own *Farewell to Reason* in his *Conquest of Abundance*. ([Feyerabend, 1999, p. 66]) With explicit reference to Popper's [1983] Feyerabend offers a counterargument that is both explicit and emphatically hermeneutic:

Such an account cannot possibly be correct. It suggests that Parmenides, being overwhelmed by his vision, did not notice change while Democritus, more a man of the world, discovered it and refuted the Parmenidean theory. But Parmenides, far from overlooking change, tried to explain it (in the second part of his poem), though with the restriction that he was dealing with appearances; reality, he said (though not in these words), is unchanging and undivided. [Feyerabend, 1999, p. 69]

As Feyerabend traces his argument to Aristotelian logical privilege, what is crucial is "to follow the argument." Contra Popper on Parmenides, the role of logic as this too requires hermeneutics:



In short, Being is many and moves in not-Being. Note the nature of the argument: Leucippus does not try to refute Parmenides by using the fact of motion. Parmenides had been aware of the fact and had declared it to be illusory. Moreover, he had not simply asserted the illusory character of motion, he had presented proofs. He had transcended sense impression on the grounds “that ‘one ought to follow the argument’” (Aristotle, *De generatio et corruptione*, 325a12f.). Leucippus, in contrast, decided to follow perception; one might say that he and those who thought in a similar manner (Democritus, Empedocles, Anaxagoras) wanted to bring physics closer to common sense. [Feyerabend, 1999, p. 69]

Here, along with Hempel’s ravens, Feyerabend brings in a reference to neutrinos that remains relevant for physics (to the current day) and Schrödinger, illuminating Planck’s quip about changes in scientific theory (advancing one corpse at a time):

The same is true of the observations of the W and Z particles and of the “neutrino,” all of which are now regarded as “real.” What matters is that the state exists, at least approximately, that some people strive for it, that they make it the center of their lives, and that they define reality (in words, or by the way they live) in relation to that center. An opponent must therefore do more than provide facts, rules, and arguments resting on them. He must dismantle the definition and change the life to which it belongs. Arguments about reality have an “existential” component: we regard those things as real which play an important role in the kind of life we prefer. ([Ibid., p. 70]. Cf. the footnote reference to Schrödinger here, p. 71).

Feyerabend turns to a reading of the *Theatetus* with a complicated invocation of measurement (and physical standards) vis-à-vis Bohr, requiring attention to debates on quantum mechanics, measurement conventionalities, objectivity and observation.

Thus the standard critical remark that Feyerabend’s text covers a great deal can present difficulty in philosophy of science which as a rule does not tend to attend to Stone Age cosmology along with reading Parmenides via Leucippus and Aristotle and Plato contra Popper together with contrasting Bohr with Einstein, Podolsky and Rosen and pointing out, as Feyerabend here argues, that the latter fall short.

Would all that, would *any* of that correspond to a Lakatosian reconstructive account? Not likely but thanks to Motterlini’s collection, we have a view into the current of the times and the debates at the LSE, as we may read in the letter ‘dated’ 17 December 1967 and posted from Berkeley. There we read Feyerabend’s postscript referring to *Against Method*, including a perhaps unexpected reference that is not part of the received hermeneutic but pop canon:

My paper will be a longish utilisation of Havas on relativity... and the title will be “Against Method” (this in analogy to Susan Sontag’s *Against Interpretation*). If you could lure Karl Popper into commenting upon



it I would be eternally grateful. (This is pure curiosity on my part).
(PF to IL, 17 December 1967, [Motterlini, 1999, p. 125]).

We get beautiful aperçues of opinionated infighting, not only by – if mostly by – Lakatos, against Joe Agassi (ameliorated by the remark that “Agassi *at his worst* is better than Harvard-MIT average at their best”). (Il to Paul, 15 February 1968, [Ibid., p. 131].)

I noted the need to distinguish between versions of Feyerabend’s *Against Method* – book(s) and article – clarifying matters for the attentive reader as by 30 June 1970, we read that “it is expected to become a history of empiricism from Neanderthal to Lakatos.” (PF to IL, 20 June 1970 [Ibid., p. 202]). The formulation may seem hyperbolic but corresponds in the first part to Feyerabend’s *Philosophy of Nature*.

Again recall the funerary procession Max Planck argued as decisive for the ‘progress’ of science. The quote stands behind Feyerabend’s arguments as it stands behind Kuhn: matters of convention, things taken for granted, the so-called ‘received view.’ To quote Planck, science does not advance via argument, be it reconstructed or otherwise:

new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die and a new generation grows up that is familiar with it... [Planck, 1950, p. 33].

For Feyerabend, scientists might have any number of reasons for abandoning a given ‘paradigm’, perhaps “out of frustration and not because they have arguments against it,” whereby, and thus echoing Planck, “Killing the representatives of the *status quo* would be another way of breaking up a paradigm.” [Feyerabend, 1970c, p. 203]

When a reigning scholar dies the upshot can be fairly flat as was the case with Popper. Other concerns displace the missing space and the formerly central name recedes into other names relevant to the discipline at the time, Kuhn and Feigl and Hanson but also Duhem and Neurath as well as, if esoterically, Mach in addition to the cast of characters needed for a clear reference to the Copenhagen interpretation (most readings focus only on Bohr or even to their detriment, Einstein et al.) of Quantum Mechanics, as Feyerabend also notes Carl Friedrich von Weizsäcker and Heisenberg and Schrödinger. Above I already mentioned Heelan, a Jesuit, physicist-philosopher friend of Feyerabend who also reads between Einstein and Bohr along with von Weizsäcker, emphasizing Heisenberg. (See [Heelan, 2016] and [Babich, 2023]).



The Bugbear of ‘the’ Analytic vs ‘the’ Continental and the Spectre of Hermeneutics

Hermeneutics is arguably the most durable legacy of the Lutheran revolution in texts, as Luther’s translation of the Bible established the printed German language, a revolution that beyond sheer materiality (the Gutenberg Bible) owed no small part of its success to telling everyman that nothing whatever, no priest, no scholar, no handbook, need come between himself and his own reading whether it be it the Bible itself – *sola scriptura* – or indeed Machiavelli or Hobbes or the economic ‘anything goes’ that might hold with respect to the financial innovations made possible by Luther and Calvin (here, on just this point, beyond Weber see Alasdair MacIntyre’s perfectly transformative analysis ([MacIntyre, 1970], in addition to (I thank Gerd Greiser for the reminder) Robert Kurz’s *Weltordnungskrieg* [Kurz, 2003], and see too an online interview with Kurz [Suárez, 2009] as well as [Böttcher, 2023/2024]).

Today, our everyman lays claim to his own Nietzsche, his own Heidegger, or, crucial for Feyerabend (thinking of Brecht), his own Galileo. As Latour puts it in his *An Inquiry into Modes of Existence*: “didn’t Galileo triumph all by himself over institutions, against the Church, against religion, against the scientific bureaucracy of the period?” ([Latour, 2015], cf. [Babich, 2017; 2015c]). Latour repeats the story we ‘moderns’ tell ourselves. But if Latour read Ludwik Fleck’s *The Invention of a Scientific Fact*, (Latour provides an afterword to [Fleck, 2005], naming Fleck “the founder of sociology of science” in [Latour, 2005, p. 112], cf., [Babich 2015c]) it also seems that Latour, supported by a Fulbright to San Diego in 1975, read and took to heart Feyerabend’s *Against Method* (or his earlier essay) where Feyerabend takes up the case of Galileo’s propaganda, which one may read as Feyerabend’s scientific anthropology/ethnography. (See too, in German [Feyerabend, 1975b]).

Feyerabend also wondered, famously, if anyone had ever ‘read’ *Against Method*, rebuking the hapless Joe Agassi [Feyerabend, 1978, pp. 125, 138] just where Nietzsche argued that reading as such had been “thoroughly unlearned.” (Cf. [Babich, 2015a].) In particular, Feyerabend had trouble trying to explain to his critics, i.e., on his *critic’s* own terms what Feyerabend was and was not arguing. Thus Feyerabend suggested his book inspired more reactions than engagement. (Cf. for one well-argued reason why, [Hacking, 2010, p. vii].)

Elsewhere I note (and it matters and must be underlined that this has not changed) that should an academic write outside the dominant, ‘received,’ tradition, however updated on the terms of current research, one will not be read. And if one is read, one will not be understood.

At issue for today’s mainstream is the ‘name calling’ (*pace* [Rorty, 1997]) that often takes the place of reading, perhaps especially in mainstream



analytic philosophy. Obviously enough, post Brian Leiter and, in the case of the philosophy of science, post the salvos of a physicist, Alan Sokal (who, along with Jean Bricmont denigrated Latour in French (see for discussion [Babich, 2017b]), there is an abundance of *ad hominem* attacks; were there not, there would be no ‘science wars.’ (Cf. “Science Out of Context” in *Common Knowledge*, organized around the hermeneutic unpacking of Sokal’s hoax [Babich, 1997], introduced by Rorty, “Left-Wing Kuhnianism” [Ibid.] and closing with Feyerabend [Ibid.]).

Contra Rorty’s suggestion, Feyerabend has been called a number of names, especially in science, today our closest analogue to religion today. And already in the 19th century, Nietzsche had claimed (Heidegger varies the claim) that science is the ‘new religion.’ Assuming science *is* the new religion, might it follow that, like theology, science is in need of the services of philosophy? But where theology recognized the necessity of philosophy, today’s science acknowledges no fealty to philosophy and the claim is equivocal on its own terms as today’s philosophy no longer follows its own tradition but science.

Nietzsche’s critique of science as humanizing convention addresses the issue of foundations significant for the sciences, including the mathematics of his day. (See [Stölzner, 2014]). Thus Nietzsche identifies the mathematization of nature with what he calls the ‘humanization’ of nature, challenging the very foundational possibility of empirical knowledge and thus of explanation in terms of mathematical/theoretical means. To this extent, Émile Poincaré (1828–1892) would seem to confirm (if thereby also to sidestep) Nietzsche’s challenge by observing “Mathematical theories do not have as their object to reveal to us the true nature of things; that would be an unreasonable claim.” [Poincaré, 1905, p. 211]

Feyerabend’s Gods

Feyerabend shared his focus on logic and argument with Lakatos, if Feyerabend made it less clear than the Hegelian Lakatos might have done that what was at issue was what Kant characterized as the ‘royal road of science’ and thus what would be necessary for anything at all, including mathematics and logic, to count as a science. This is influential in Feyerabend’s correspondence with Lakatos where he invokes not only his impatience (or is it Lakatos who is impatient with the truth value of *all swans are white?*) but in his posthumous *Conquest of Abundance* in his pro-Parmenides perspective as he speaks contra Popper in terms of Hempel’s raven paradox.

It would have helped to invoke hermeneutics (see [Babich, 2023; Babich, 2017] and [Heelan, 1983], and [Heelan, 1977], along with [Parini, 2009; Kisiel, 1976]) and perhaps Heidegger who was already talking



about Parmenides in his 1930 *Introduction to Metaphysics* quite with respect to ‘the nothing,’ speaking as Feyerabend was of Rudolf Carnap, as Feyerabend names this his “pro-Parmenides” as this may help the reader to understand the *ontological* reference of the title: *The Conquest of Abundance*:

According to Parmenides the most basic entity underlying everything there is, including Gods, fleas, dogs, and any hypothetical substance one might propose, is Being. This was in a sense a very trivial but also a rather shrewd suggestion, for Being is the place where logic and existence meet: every statement involving the word “is” is also a statement about the essence of things. [Feyerabend, 1999, pp. 61–62]

Speaking of ‘Gods’ in the plural adds trouble and at least one author has worried that Feyerabend might be a dangerous name for theology. ([Munchin, 2019] as well as, earlier, [Meynell 1978] in addition to [Martin 2016] and [Munchin, 2011].)

On the basis of what Feyerabend calls ‘ontological abundance’, Feyerabend draws a dramatic parallel between Parmenides and Shakespeare and the conservation of matter/energy:

To start with, the premise, *est in* – Being is – is the first explicit conservation law; it states the conservation of Being. Used in the form that nothing comes from nothing (which found its way into poetry: *King Lear* 1.1.90) or, in Latin, *ex nihilo ni(hi)l fit*, it suggested more specific conservation laws such as the conservation of matter (Lavoisier) and the conservation of energy (R. Mayer, who begins a decisive paper with this very principle). [Feyerabend, 1999, p. 61]

All of this is *Nachlaß*.

At issue is the status of an author’s posthumous work. Feyerabend’s *Naturphilosophie*, *The Conquest of Abundance*, these books may not be counted, to echo Goethe’s rubric, as *letzter Hand* or author-authorized editions. Thus my my own reservations against accepting, even with his authorization, Feyerabend’s suggestion that I edit his work. The posthumous compilations to date, as the editors present these in their various articulations, show Feyerabend as concerned with the problem of science qua science and the empirical. Yet to argue that Feyerabend was (or was not) a ‘realist’ or ‘empiricist’, requires the similarly posthumous exchange between Feyerabend and Lakatos. As Feyerabend writes, (not at all incidentally close to Toulmin) at issue is the ultimate reality that is the object of science. Thus he cites Planck’s 1930 “*Positivismus und reale Aussenwelt*,”

The two statements, “‘There exists a real external world which is independent of us’ and ‘This world cannot be known immediately’ together form the basis of all of physics. How, they are in conflict to a certain extent and thereby reveal the irrational element inherent in physics and



in every other science, which is responsible for the fact that science can never solve its task completely.” (Cited in [Feyerabend, 1999, p. 62], cf., [Planck, 2001]).

Feyerabend’s ‘pro-Parmenides’ argument is not about the Carnapian prohibition contra talking about nothing, as Heraclitus managed to do this, to Parmenides’ irritation, but and this is key for Feyerabend’s discussion of Popper, about logic *per se*. Thus Feyerabend expounds:

The argument wants to prove that “reality” is eternal, indivisible, and free from change. It assumes that what exists simply is – *estin* – and has no further properties. Once this assumption is made, the only distinction that remains between an event and its predecessor in time (or neighbor in space) is that the one is and the other is not – and now the conclusion follows. [Feyerabend, 1999, p. 66]

Feyerabend’s point is that the premise is not established by way of ‘argument’ for formal reasons, arguing, logically, that Parmenides’ reasoning deployed *modus tollens*:

Estin was a premise and so it certainly was not established by the argument itself. More importantly, there existed objections against accepting such an assumption. Aristotle mentions two... the assumption conflicts with natural philosophy (where change and subdivision are taken for granted); and it conflicts with common sense (“to be’ is used in many ways” – a favorite Aristotelian slogan). [Ibid.]

The problem is that Parmenides argues against change, hence the need to keep both logic and the antilogic that is alteration (change). The standard story (and this is a mini-version of the account contra Galileo throughout *Against Method*), corrects Parmenides by suggesting that he manages not to notice that there is change in the world. For Feyerabend, who ascribes this claim of non-notice to Popper,

Such an account cannot possibly be correct. It suggests that Parmenides, being overwhelmed by his vision, did not notice change while Democritus, more a man of the world, discovered it and refuted the Parmenidean theory. But Parmenides, far from overlooking change, tried to explain it (in the second part of his poem), though with the restriction that he was dealing with appearances; reality, he said (though not in these words), is unchanging and undivided. [Ibid., p. 69]

Using the example noted above of neutrinos, as first posited in theory and subsequently regarded – complicatedly so given the elusive nature of neutrinos *to date* – as ‘real,’ ([Feyerabend, 1999, p. 69]) Feyerabend thus brings Parmenides this into the debate as he read this between Schrödinger and Bohr and thence to Einstein, Podolsky, and Rosen [Ibid., p. 76], which is the challenge of quantum mechanics and objectivity (cf. Heelan on Heisenberg [Heelan, 1965] and cf. [Heelan, 2016]).



It can be helpful to note Feyerabend's own footnote on this debate as he tells us that:

Erwin Schrodinger used precisely such a decision in his criticism of Bohr. "Bohr's standpoint that a spatiotemporal description is impossible, I reject *a limine*. Physics consists not merely of atomic research, science not merely of physics, and life not merely of science. The purpose of atomic research is to fit our experiences from this field into the rest of our thought; but the rest of our thought, as far as it has to do with the external world, moves in space and time." [Feyerabend, 1999, p. 71]

Here Feyerabend points out with a reading of Plato's epistemological argument in the *Theaetetus* that

we must admit that the key words of an argument are often ambiguous in the sense that they await specification from the kind of enterprise one is engaged in. If the purpose is to change beliefs in accordance with a new and comprehensive cosmology, then a conflict between this cosmology and popular opinion cannot be used to criticize the former. [Ibid., p. 73]

Now in addition to measurement and the amusing example of stretching a "rubber unit-meter in Vienna" and thereby changing the length of a piece of wood in Australia [Ibid., p. 76], Feyerabend reminds us that

Ontological or worldview discussion has to precede the use of counterexamples, it cannot be based on it. But worldview discussion is not different from other kinds of discussion which means that we can no longer assume discussion-independent and in that sense "objective" arbiters of a debate. This applies even to such apparently trivial cases as "all ravens are black" – the favorite example of naive falsificationists. [Ibid., p. 77]

To read Feyerabend on the terms of today's philosophy of science is fraught as Feyerabend uses both then-commonplace conventions (these have changed in the interim) in dialogue with the conventions of (a certain reading of) classical philology in addition to ancient astronomy as key to *Naturphilosophie* (via [Meyer-Abich, 1997]). In addition, one must take account of his attention to questions of art and science, especially the role of *style* in art (thus Feyerabend's references to Ernst Gombrich and, when it comes to his discussion of Brunelleschi's 'experiment,' Duhem in the background and explicitly cited, if more elusively, Alois Riegl).

If Feyerabend called himself an 'anarchist,' (see [Tsou, 2005] and [Kusch, 2021]), with his contextually freighted reference to Riegl – and the history of art history, i.e., and specifically, in a German context the 'science of art' – Feyerabend invokes a precision most of his readers will miss as they neither support nor understand the concept. This can mean (it has meant) that the reader sets Feyerabend into his or her own conceptual context to whatever end and this has characterized assessments, be they critical or rehabilitative of his thinking. Matters are compounded as



alternative approaches that happen to be ‘continental’ continue to be excluded and were excluded even in Feyerabend’s day, even as the exchange between Feyerabend and Lakatos can also be read as ushering their own names off the philosophical stage of mainstream, analytic philosophy of science (cf. Lakatos [Motterlini, 1999, p. 297]).

The politics of the academy, as unpleasant as it is influential, makes/breaks careers, reputations, lives. At stake is the question of fitting Feyerabend into what one supposes philosophy of science to be, challenging as he was only incidentally trained (at the LSE) in the received style of philosophy, and it has been argued that both Feyerabend and received philosophy of science would benefit from hermeneutic and non-mainstream styles of philosophy of science.

For mainstream, business-as-usual philosophy of science, Feyerabend remains problematic and can continue to be designated as the ‘worst enemy of science’ (this is the way Tsou begins his [Tsou, 2003] essay and see too [Preston et al., 2000] as well as [Brown, Kidd, 2016] and others [see for further references: Kidd, 2011 and Babich, 2023]. Cf., too, [Preston, 1997] as well as [Kidd, 2011]), which entails that Feyerabend’s defenders (largely) seek to demonstrate that he was (as he was) pro-science. And scientists have taken umbrage from the start as they, somewhat more naively than philosophers (and pop culture), suppose themselves to use some version of ‘the scientific method.’ (Cf. here [Theocharis, Psimopoulos, 1987] and, surprised by backwash contra their (one-sided) account in their letter [Theocharis, Psimopoulos, 2001], as well as [Pigliucci, 2018].)

The trouble for philosophy of science is that Feyerabend was not pro-philosophy of science.

I argue that it is worth reviewing Feyerabend’s philosophy of science together with hermeneutic phenomenological approaches in philosophy of science, especially with respect to space perception [Heelan, 1983]. Above, I referred to Heelan on Heisenberg and objectivity as this intersects with Feyerabend’s discussion of complementarity and quantum mechanics including Heelan’s reference to the von Neumann ‘cut’ ([Heelan, 2016, p. 84], including the “measurement process marking the epistemological cut between the observer-subject & the observed-object.” [Ibid., p. 85] Heelan also draws on his own familiarity with optics and renaissance perspective (Brunelleschi but also non-Euclidean geometry) [Heelan, 1983]), detailing the ‘measurement process marking the epistemological cut between the observer-subject & the observed-object’ [Heelan, 2016, p. 85] along with philosophical differences between Heisenberg, Bohr, and Einstein.

Feyerabend’s own arguments regarding Galileo point to the preparation for experimental science as such, as Feyerabend references Crombie and Duhem, to argue contra Kuhn that “talk about a ‘revolution’ only reveals the historical ignorance of the talker” (PF to IL 4 May 1971,



[Motterlini 1999, p. 249]), etc. The complicated constellation Feyerabend has in mind comes closest to the constellation Nietzsche observes in his Basel lectures with respect to Kant and Anaxagoras (cf. [Babich, 2021]). The argument there would lead Nietzsche to his own characterization of the world as a *Spielwerk* – not necessarily ruled by law yet not lacking necessity as such. A parallel may be made, beyond this essay, to a study Feyerabend characterizes as, alternately, ‘marvelous’ and ‘excellent’ ([Meyer-Abich, 1965]), a text that has yet to be translated (also missing from the realm of desiderata might be his practical ‘natural philosophy’ ([Meyer-Abich, 1997])).

To that end we read in the summer of 1971, Feyerabend’s assessment of his differences with Lakatos:

From an *argumentative* point of view our “theories” are equivalent. They are *not* so from a psychological point of view. Nor do we have the same *basic normative judgments*. In the “Battle of the Ancients and the Moderns,” *I* would side with the ancients, *you* would side with the moderns. I believe that Galileo cheated and had to cheat, that is; you believe that mob psychology plays only a very minor role in science, while I think that it is everything and reason plays hardly any role in science. I prefer happiness to truth, you – well, here I am not so sure, but I am sure that you will say publically that you prefer truth to happiness. [...] So you see, if we stick to basic n.j. [normative judgments] we would have lots to talk about (PF to IL, 15 July 1971 [Motterlini, 1999, p. 257]).

What can be supplemented is two-fold, the references to standard signifying terms in philosophy of science but, more profoundly what is missing is the philosophy once called ‘continental,’ on the side of interpretation and context, or hermeneutic philosophy of science [Babich, 2015b]. As hermeneutic philosophy of science includes critique, it tends to remain largely unreceived in philosophy of science (see [Ginev, 2016] along with [Babich, Ginev, 2014]). The same, to be sure may be said of classically phenomenological approaches, and of readings of science that feature critique, including Fleck and Latour, etc.

I cannot fully work this out here as it would take chapters – and probably a genial interlocutor or partner in dialogue, as Feyerabend imagined such – to begin with, but I can point to it.

Postscript: On Feyerabend and Nietzsche

In the late 1980s and early 1990s, I spent a fair amount of time trying to persuade Feyerabend to talk about Nietzsche only to find him more underwhelmed than I would have imagined on the basis of his own arguments in *Against Method*.



Thus Ian James Kidd rightly points to more affinities with “critical theory and the Frankfurt School and the later writings of Heidegger and Husserl than to the dominant themes and figures of analytical philosophy” [Kidd, 2021, p. 187]. Helmut Heit and Eric Oberheim in their introduction to [Feyerabend, 2016, pp. vii-xxvii], see general compatibility with Nietzsche. And, once upon a time, a professor of literature argued contra another professor of literature, Walter Kaufmann’s experimentalism – still defended by analytic Nietzscheans – that Nietzsche was a relativist, paralleling Feyerabend with Kuhn but also Nietzsche contra “the methods which Carnap, Hempel, Nagel, Popper, or even Lakatos want to use for rationalizing scientific changes can be applied [to disputes between incommensurable cosmological points of view]” [Bearn, 1986, p. 147]. Although Bearn does not cite Nietzsche on the Homer question, Feyerabend’s own point dovetails with Nietzsche’s conclusions: ‘What remains are aesthetic judgments, judgments of taste, metaphysical prejudices, religious desires, in short, what remains are subjective wishes.’ ([Feyerabend, 1975, p. 285], cited in [Bearn, 1986, p. 147]; cf. [Babich, 2012]).

Bearn’s argument (and arguments like his argument) set both Nietzsche and Feyerabend in the camp of the relativists. Nor would Feyerabend mind. Yet the more you know about Nietzsche and science, the less relativist Nietzsche turns out to be and the less Nietzsche fits Feyerabend, true to Feyerabend’s reservations, if the Feyerabend of *Naturphilosophie* is slightly more compatible with Nietzsche.

Nevertheless, had Feyerabend read the unpublished Nietzsche I recommended (certainly he came to read beyond Zarathustra), Nietzsche would have been invaluable for his discussion of Homeric formulae and Greek nature philosophy. Crucially, however, for a number of historical reasons, Nietzsche’s most important lectures were not fully accessible to Feyerabend. (I discuss the scholarly significance of the relatively late, 1996 publication of Nietzsche’s complete Basel lectures [Babich, 2020]).

Thus, a discussion of the connection between Feyerabend and Nietzsche on science must remain for another day.

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