

Feyerabendian Pragmatism

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Feyerabendian Pragmatism

Jeffrey Foss*

In the not-too-distant future the scientific realism debate will be absorbed into the far more ancient-and-venerable, old-and-unqualified, realism debate. The first efficient mover of this absorption will be the fact that scientific ontology is a growing and very mixed bag, including not just rocks, plants, animals, and stars, but the Higgs boson, the Big Bang, evolutionary pressures, teenage anxieties, economic growth, social trends, countries, industrial toxins, and hedge funds. Trying to hedge off these ever-stranger newcomers by such moves as castling the debate within well- (or best-) established, mature (two decades old? five?), basic physics is to submit to a biased umpire, with a narrow strike-zone, to get to an arbitrary first base.

The large-scale conceptual migrations underlying this future change include increasing diversification (as opposed to unification) of the sciences into new fields (cosmology, computation, consciousness, climate) with strange realities, entailing increasingly well-established internal tensions among practising scientists (gradualism versus punctuated equilibrium, Copenhagen interpretation versus quantum realism, CO₂ warming versus solar-driven variability, etc.), and ever more integration of scientific theories into different domains of popular culture. Lo! The time is upon us when we (self-identified) philosophers really should respond to the question, "Are you a scientific realist" with the question, "Which bit of science do you have in mind?"

In retrospect we will see, and even now we can see, that philosophical answers to the question of scientific realism are treating the word "real" as an honorific title. The everyday scientific realist is saying something like, "Science is just so cool (epistemically and metaphysically speaking) that I believe what it says," while the scientific hyper-realist (such as Paul Churchland) bombastically adds, "and only what it says." The everyday scientific anti-realist doesn't think science is all that cool, and thus denies

^{*} Jeffrey Foss was so smitten by philosophy as an undergraduate that he abandoned physics, where he excelled, for the pursuit of wisdom, where he encountered difficulty. Though he made a profession of this philosophical pursuit, he never abandoned the romantic realism of physics: its love of sensory evidence, its continually hopeful invention of instruments which extend and improve our sensory mechanisms' causal contact with the world, and, most importantly, its use of the dogs of data for herding the sheep of theory.

that everything science talks about is real, although which part of science (and its ontology) s/he rejects varies. Since physics writes what it and all orthodox scientists take to be the foundational ontology for all of science, the ontological focus is on it—but it is not nearly as clear, sturdy, steady, or near-fetched these days as it was in Newton's heady times. To paraphrase the poet, this new, solid physical stuff can "melt, thaw, and resolve itself into a dew"—albeit a dew of black holes—or some even stranger quasi-substance that physics will come up with tomorrow. Black holes are but one magical stuff of new physical theory (or physical ideology as Feyerabend sees it), and I sympathize with ontologists who pick and choose within its bestiary. Bas van Fraassen famously suggests we needn't go there at all, as accepting a theory only requires believing that the perceptible (visible, audible, etc.) things it refers to exist—so light exists but retinal cells, awkwardly, might not.

In the future we will see that there has been all along a very personally pragmatic thread to the scientific realism debate: a philosopher dubs "real" the entities postulated in scientific theories (or hypotheses) only if they satisfy the ontological intuitions underlying her/his ontological leanings. All the while, the reality of philosophers, their theories, and the journals they publish them in are merely presupposed without question—along with the metabolic chemistry of those who toil in the philosophical and publishing professions. A richer, more Feyerabendian, ontology than that which is professed is unconsciously presupposed by many an ontologist.

Like C.S. Peirce, I think that we must look at a person's whole behavior to see what she or he *really* believes, not just the verbal bit of it. Like my philosophical grandfather, I believe that *real* belief (versus expressions of belief) guides behaviour. That's its biological function. What you believe is what you act on and live by. It is a working part of the info-bio-mechanism you are. *Professed* beliefs are more often restricted to verbal behaviour alone.

First, to say that "real" is an honorific expresses the pragmatic core of my ontology. In terms Wilfred Sellars and both Churchlands might, I hope, like: when I accept a model (scientific or otherwise) that *really* matters to how I act and live, then I grant (whether explicitly or implicitly, consciously or unconsciously) reality to the things of that model. I honor what really matters to me by treating it as real. Put epigrammatically:

The Real = All That Really Matters.

Secondly, I accept as true Paul Feyerabend's postulation of the "Abundance of Nature," which I (perhaps mis-) understand as follows: the world (reality as a whole) contains such an abundance of things that we are generally able to find bodies of evidence in favour of almost any theory we may dream up. Peoples have thrived believing the *craziest*, wildest

things. When it comes to professional knowledge, i.e., science, there has been abundant evidence for every model that ever got into the major leagues, including those that have long since been smashingly falsified, like Newton's mechanics, Ptolemy's astronomy, and ancient flat-Earth geography.

But—and this is a history those who cleave to the "mature science" form of realism do not want to learn from—the flow of humanly accessible evidence is anything but monotonic. The evidence for any model, including Ptolemy's and Newton's, may together form a living, growing body for centuries, and seem immortal, but eventually cancerous falsifications appear. Conversely, the sun-centered universes of Philolaus and Aristarchus can lie as dead as a Norwegian Blue parrot for centuries only to have life breathed back into them by sky-gazers like Copernicus, telescope-makers like Galileo, and model-spinners like Newton.

I believe this is inevitable for the following Feyerabendian reason: there is more in the world (the Abundance of Nature) than can be captured in any representation, model, map, theory, mind, brain, or philosophy. Much must be left out. Leaving the right (i.e., the messy, murky, troublesome) stuff out is the first decision of any successful modeller. So the unexplainable always comes knocking for any theory, ideology, mapping, or representation—no matter how high-born or well-born or obvious. Even the impossible may turn up—and grumpily refuse to go away (e.g., the Earth moves, or vanishes by gravitational collapse).

As for scientific realism, my Feyerabendian Pragmatism brand of ontology says that bacteria, viruses, molecules, atoms, electrons, and electromagnetic forces are real because they *really* matter to me (just as much as do dismissive philosophical reviews). Those who work with such scientific things (not the reviews) created the computer on which I write this essay, and since this essay is real, those scientific things on which both computer and essay depend must have significant reality as well.

On the other hand, my pragmatism, schooled by William James, requires that my beliefs be seen as having different sorts and degrees of reliability. I trust my roadmap to get me where I am travelling, but not to reveal the detailed shape of a river or the real colour of its water. I place more confidence, generally speaking, in my manifest model, my sensory representation of the world, wherein my perceptions and my theory of everyday objects cohere, than I place in the scarcely visible and generally less relevant postulates of science. I am more confident in the reality of plants, animals, and inanimate objects than I am in the atoms of which I believe (less confidently) they are made. When it comes to explicating the different sorts and degrees of

¹ I develop this idea of Wilfred Sellars a bit more in Foss (2000)—in ways I hope he would like. See especially Ch. 2.

reliability among my beliefs, there is little by way of sweeping principle and much by way of homely, boring qualifications, details, provisos, and the uncounted devils among the details.

I do not believe there exist different degrees of reality, but I do believe there are different sorts of entities. Living things, for instance, are really different from nonliving things. How many sorts of entities? I see no best way to count them, indeed no practical way to count them at all (i.e., there is, practically speaking, an uncountable abundance of kinds of things)—and I leave the business of ordering the whole dang shooting match to more ambitious ontologists than me. But, for what it's worth, I believe that last-minute corrections are just as real as dogs. I think that hunger and satiety are just as real as food, even though what counts as food is species-specific (hay for the ass, bread for me, etc.), hence that different species experience different realities (all of which have a place in the whole). Venturing beyond science into ordinary language, rainbows are real, though they clearly are not physical objects, but visual phenomena. Like colours, they are phenomena that exist by virtue of that part of my nervous system that informs me of the world that is present to me in both time and space. I'm still not clear whether van Fraassen sees rainbows as real. Speaking of whom, I dare venture even into the domain of logic by believing my decision to write this essay was real, though the decision I might have made not to write it was never real, though it might have been. Who could fail to agree—if not too bored to read.

Finally, I speculate that this ever-creative, constantly-evolving, endlessly-happening universe comprises a specific ontological unity at any one time and over all of time. That's what my total experience so far leads me to think, though I must in honesty hasten to add that even if this is really true, I will never have a way of proving it, not even to myself, much less to others. Even if there is only one world, there are indefinitely many ways of experiencing it and knowing it. The abundant font of reality constantly overflows our primitive vessels of epistemological containment. There is more to it than meets the eye, or all the eyes, microscopes, telescopes, cameras, Broca-readers, and so on that will ever exist.

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² The Broca-reader is a science-fictional device I devised as a Dennett-ian intuition-pump in Foss (1995). A Broca-reader reveals to scientific observation the purely verbal aspects of our private consciousness, those things we say "in our hearts," to ourselves alone, in a specific language, with specific words.

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