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Twitter and the aphoristic (re)turn in thought, knowledge and education

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Tweeting from Delphi: A reply to Steve Fuller's editorial on aphorisms

David Gorman

Northern Illinois University

The official topic of Steve Fuller's editorial is aphorisms, but I think that it is early days in his thinking about this interesting genre. He mentions them at the beginning and the end of his piece, and just enough times in between for the aphorism to constitute a thread on which Fuller then strings a discombobulating variety of other material. I will confine myself to the literary aspect of the topic, as pertaining to my own academic field.

How should we understand the term 'aphorism'? Alas, it is pretty vague. One feature it connotes is brevity (and Fuller certainly takes it that way); but even fuzzy or relative boundaries seem lacking. We refer to the 'aphoristic' works of Nietzsche, for example (*Human, All Too Human*, *Daybreak*, and *The Gay Science*); and likewise Adorno's *Minima Moralia* is routinely described as a text consisting of 153 'aphorisms'. And yet the entries in these books may run to several pages: they are short essays.

So, to stick with the last-mentioned work, when Adorno lets fly a pithy saying, to call it an aphorism fails to distinguish it from its aphoristic context. Not only do several of the entries consist of sets of this kind of saying (for instance, a striking one, 'The whole is the false', appears among seventeen making up #29), but others are dropped in passing, as when, opening at random to #50, we read: 'the demand for intellectual honesty is itself dishonest'. The distinguishing feature of these examples may not be brevity so much as fragmentariness, that is, the sense that more needs to be said, and could be.

That seems to exclude bald factual statements, definitions, and the like—although perhaps not for Fuller. Was Wittgenstein an aphorist? He produced a number, as in the famous case of *Tractatus* 7: 'Of what we cannot speak we must be silent'. But compare this to, for instance, 6.03: 'The general form of integers is: [0, ξ , $\xi+1$]. Fuller inclines to deny any sharp difference between these cases, as I take it. Should we then say that every one of the thousands upon

thousands of *Bemerkungen* that Wittgenstein wrote is an aphorism? At best this would erase the distinctiveness of some: 'If a lion could talk, we could not understand him' (1953, p. 223). However this may be, the examples mentioned indicate another feature of aphorisms, which is suggestiveness, as in the saying of Heraclitus concerning the Delphic oracle: 'It does not say and it does not hide, it intimates'. This aphorism about aphorisms, as we could describe it, is familiar to philosophers currently because Donald Davidson recommended generalizing it to metaphorical usage (1984, p. 262).

My question for Fuller is, on his account, what is *not* an aphorism? The point at which he is driving appears to be that any utterance can be taken as an aphorism—ambiguous and open to further elaboration. In short, saying is hinting. I would think that his proposal to assimilate aphorisms to tweets creates a constraint on an answer, because a tweet is a limited phenomenon. Or is it?

Fuller, aphorisms and education

Val Dusek

University of New Hampshire

Steve Fuller has given another bravura intellectual performance. Starting with the very contemporary issues concerning Twitter's status (i.e. as criticized by Elon Musk), Fuller inter alia touches on Asian philosophy's use of aphorisms rather than proofs, the Presocratic Greek Heraclitus, the aphoristic style of Wittgenstein's *Tractatus*, and the 'Twitter University'. There is not enough space to comment on all the rich content of Fuller's erudite romp through history that careens through the Stoics, Aristotle as performance, neo-Platonic medieval tradition: Augustine, Anselm, Scotus, Peirce, Conan Doyle, Jakobson, Lacan, Freud, Adler, Maslow, Polanyi, McLuhan, and on.

Fuller begins noting that much East Asian, particularly ancient Chinese, philosophy is aphoristic rather than discursive. This difference led numerous responders to Brian van Norden's and Jay Garfield's claims that US Departments of Philosophy are really Departments of Western Philosophy to respond viciously, sometimes verging on racism, ignorantly dismissing and denigrating Asian Philosophy, claiming it totally lacks structure and content (Van Norden, 2017). Angus Graham (1989) analyzed the *I Ching* and other ancient Chinese texts in terms of the contrast of metonymic and metaphoric expression, which Fuller later discusses.

Fuller, who has often taken positions different from mainstream academic opinion, here defends Twitter communication against its denigration by many conservative academics.

In the 1 August 2022 edition of the *Washington Post*, conservative US commentator George Will wrote scathingly and viciously against academics using Twitter. Will supports his position by extensively using the opinions in the University of Chicago journal *The Point* by a graduate student Joseph Keegin (2022)—who is, ironically, quite active on the Twitter he denounces. According to Will, academics using Twitter desperately seek popularity, and using Twitter it primarily to cheer political favorites and to condemn opinions different from their own. Will, whom I once saw sitting in an airport wired with several cell phones and a laptop simultaneously active, here joins a long tradition of resistance to new forms of communicating ideas.

Fuller rightly defends the value of the aphoristic style of expression in figures such as Wittgenstein, who in 1912 told Russell that to give arguments for his Delphic pronouncements would be like grasping a flower with muddy hands. Major aphorists, Georg Lichtenberg the eighteenth-century German physicist and the early twentieth century Viennese journalist, playwright and entertainer Karl Kraus were among Wittgenstein's favorite reading (Kimball, 2002; Stern, 1959). Beyond the ancient Heraclitus and Zen Buddhists there is a tradition of aphoristic expression in modern Western philosophy stretching from the Spanish Balthasar Gracian (1964, 2005) and the French Blaise Pascal in the seventeenth century to the German Friedrich Nietzsche

in the nineteenth century. Erich Heller toyed with his readers by presenting quotes as if from Wittgenstein and then revealing that they were from Nietzsche and ones supposedly from Nietzsche then revealed to be really from Wittgenstein (Heller, 1959; Heller & Moran, 1967).

The basing of a college curriculum on pithy aphorisms was satirized before the age of the internet by comedian Don Novello and Father Guido Sarducci" (1979), who played the fictional priest 'Guido Sarducci' in the early years of the late-night US television show *Saturday Night Live*, proposed 'The Five-Minute University'. His proposed education consisted of a single buzz-word for each subject, the minimum a student would remember five years after graduating. A genuine twitter university in contrast would develop pithy intellectual insights to stimulate the students' own thought. I had once posted 'five-minute philosophy' consisting of the most famous aphorisms of major philosophers. 'The way up and the way down are the same', 'Concepts without percepts are blind', 'We live forward but understand backwards', 'Science does not think', 'Nothingness is a worm at the heart of Being', 'No entity without identity', among many others.

The most provocative claim that Fuller makes is that scientific equations can be considered as aphorisms. Some popular bits of science, such as $E=mc^2$, which have become buzzwords. There are also (according to Erwin Chargaff and Dorothy Nelkin) scientific coats of arms or totems such as the DNA double helix. But these as usually presented for the most part do not stimulate reflection as aphorisms should. Scientific equations are certainly pithy and stimulate all sorts of reflections. Einstein's gravitational tensor equation in General Relativity consists of a few capital letters with a half dozen subscripts, but when applied it must be unpacked into much, much longer equations. et science is also highly discursive, both in the deduction of consequences and the backtracking to axioms and presuppositions. Certainly, scientists have also produced pithy aphorism to summarize their doctrines, such as physicist John Wheeler's 'Bit before it', to summarize the priority of information over matter in the nature of the universe.

The fate of a Tweet: On aphorisms and arguments

Markus Pantsar

RWTH-Aachen and University of Helsinki

In his article 'Is the Path from Aphorism to Tweet the Royal Road to Knowledge?', Steve Fuller takes us on a walk through paths of Western intellectual history to show what aphorisms, through their 21st century incarnation as tweets, might achieve in the academic world. As one can expect to experience on a walk around a zoo, what Fuller shows us is a mixed bag. Some animals are asleep, others uncomfortable in their setting. But then there are those that delight and fascinate the observer—and Fuller's article is rich way beyond its word count in that respect.

A key insight Fuller makes can be found in the distinction between aphoristic and *anaphoric* thinking. Whereas anaphora takes us back to what was presented earlier, aphorisms enable something new—a Gestalt, if you will—to emerge. This I take to be the foundation of Fuller's optimism over what Twitter could achieve in an educational context. A successful tweet, just like a successful aphorism, can achieve something that has come to be seen as increasingly less plausible in the scientific world: a cognitive 'leap' through which we can bypass passages of argumentation.

This is an intriguing idea. To be sure, people in academia love their aphorisms, but they are generally presented in order to be explained shortly afterwards. A researcher is not likely to quote, say, Einstein's 'God does not play dice' without explaining what Einstein meant—or more likely, what he *didn't* mean. There is power in aphorisms, which explains their continuing popularity, but researchers don't trust people to *get* them, especially when communicating to general audiences. After an aphorism has made its rhetoric impact, the academic custom is to turn it into an argument. Often this is done to avoid misunderstandings but, as Fuller points

out in the beginning of his article, equally important is the suspicion academia has for aphoristic expression. However, when an aphorism is turned into an argument, the cognitive leap involved is deemed to be of secondary importance. Thus, the mainly heuristic use of aphorisms in modern academic communication runs the risk of taking away what is precious about aphorisms.

But is that a problem? Did the brief Western infatuation with Zen Buddhist kōans in the second part of twentieth century, for example, contribute something important to the academic world? Perhaps aphorisms are simply something that our modern academia does not need beyond their rhetoric and heuristic purposes? Perhaps. But I agree with Fuller that this kind of mindset is limiting. Most importantly, it is a mindset from another time, one in which we didn't have instant access to a worldwide network of like-minded people. I am open to the idea that there is a level of academic communication that can be conducted in tweets which achieves something the traditional means cannot. In fact, it is already an ongoing experiment and we should wait for the data.

In a nutshell: Aphorisms and fortune cookies

Babette Babich

Fordham University

Steve Fuller reads through philosophy via Andrew Hui's condensation of its allergies to aphorism. Rich and learned, Fuller's reflection features theology from Anselm to Bacon, including metaphor and metonymy (the last metaphorically conceived), along with philosophy of science, especially Kuhn.

The '*nux, crux, lux*' (Nietzsche, 1969, p. 118) emerges as Fuller writes:

'if equations are understood as aphorisms, and the difference between math and poetry is simply that one uses numbers and the other uses words, then 'science' can be properly understood as the site for contesting the socially tolerable range of alternative interpretations of the encoded data'.

Just what is an aphorism?

After Nietzsche, Wittgenstein wrote aphorisms along with Karl Kraus (2001 and on Wittgenstein, filtered — isn't everything? — through Cavell, see Gould, 2004 as well as Laugier 2018). Adorno adds esotericism as does the yet more esoteric Günther Anders.

The logical issue is compounded by the challenge of language. What is the aphorism in German? In English, French? Italian, etc.? Do we merely mean what the tradition parses as the gnomic, the ambiguity of oracles?

Is the little text hidden in a fortune cookie an 'aphorism'?

Nietzsche emphasized that his readers could not read aphorism as a form 'unlearned' as an 'art', the aphorism was 'not taken seriously enough' (Nietzsche, 1969, p. 23). And, as Nietzsche's analytic readers have learnt, it's hard even to identify an aphorism (Babich, 2006, p. 188).

Things are not made easier (though they might be more interesting) where Fuller proposes to equate equations with aphorisms. Equations are sentences thus Fuller rightly notes Frege alongside the structuralists. But is the difference between mathematics and poetry mere combinatorics?

And what is a word and why does Nietzsche say: 'Every word is a metaphor' (Nietzsche, 1986, p. 323)?

In addition to Steve's walking Aristotle, there is the haptic, socio-phenomenology of Twitter given texting qua acoustic-affective trigger, socio-psychologically speaking (Babich, 2016), a point explored by the social anthropologist Sherry Turkle (2011), inspiring business psychology, so the past two years have demonstrated, able to do anything social engineers decide (Alter, 2017; Denworth, 2020; Seymour, 2020).

Steve's intriguing essay ends by making a plea for the (failed) Swedish Twitter University. Suggesting it might be resurrected, like a digital passport, by fiat, in the turn to the muscular

appeals of the market and capital's allure (Elon Musk), Fuller's plan for Twitter seems a bite size version of Ray Kurzweil's Singularity University.

One could reread Illich's *Tools for Conviviality* (1973) on education and life to appeal to Fuller's 'digital natives'. But looking to praxis, what these natives do seems more salient as new (and not-so-new) professors use Twitter to crowdsource syllabi for the classes they are asked to teach, cutting research time in the process.

What's happening? What is it all about? Augustine's Cross, Dante's Pivot, and TFW Fuller Tweets

Thomas Basbøll
Copenhagen Business School

Sometimes 'here' has no walls.

Lisa Robertson

According to Steve Fuller, a good tweet provides a pivot from metonymy to metaphor, from literal reference to figurative sense, from here to eternity. Each tweet crosses an intersection in the City of Man, but one that might, like some crossroads in the *Twilight Zone*, take us to the City of God. Now, if my timeline is any indication, truly good tweets are few and far between, but I like his idea of a tweet as a 'micro-experiment in meaning-making', posting as *poiesis*. 'What's happening?' asks Twitter, and Fuller answers by telling us 'what it's all about', be it intellectual life or the (trans)human condition. He pivots, I want to say, from protocol to aphorism.

If the latter marks (*apo-*) a boundary (*horizein*), the former is the first (*proto-*) graf we paste into the draft (*kollon*) of history. As Fuller points out, Russell's hopes for its poetry notwithstanding, the logical positivists were initially inspired by the *Tractatus*, not to metaphorical excess, but to metonymical parsimony. They were looking for the 'words and images' that could constitute what they called 'protocol sentences' or, as Fuller, puts it, 'literally the first things that come to mind' when we look at anything that is the case in the world. 'We make ourselves pictures of the facts,' said Wittgenstein. 'Propositions are logical pictures of facts.'

An aphorism, situated at the crux of Augustine's Cross, we might say, just puts an eschatological spin on it. A protocol sentence is always about the here and now; an aphorism gestures everywhere, forever. Consider the later Wittgenstein's doubts about the metaphysical 'conjuring' trick he tried to pull off in the *Tractatus*: 'For when I began my earlier book to talk about the 'world' (and not about this tree or table) was I trying to do anything except conjure up something of a higher order by my words?' As if directly inspired by this idea, Kenneth Boulding began *The Image* (1975) as follows:

As I sit at my desk, I know where I am. I see before me a window; beyond that some trees; beyond that the red roofs of the campus of Stanford University; beyond them the trees and the roof tops which mark the town of Palo Alto; beyond them the bare golden hills of the Hamilton Range.

Silicon Valley has a way of interpolating itself in everything, but as Fuller might say, on Augustine's Cross, the trees and roof tops of Palo Alto are just temporary things eternally the case, along with everything else in the world, in the mind of God.

'Sometimes it is raining,' said Quine (1993) in his own elegant defense of protocol sentences; 'sometimes not'. We can perhaps imagine a *Tractatus Logico-Empiricus* that begins, not 'The world is everything that is the case', but simply 'It is raining'; and, concludes, not 'Whereof one cannot speak, thereof one must remain silent', but, if you'll pardon it, 'Every cloud has a silver lining'. This would perhaps better live up to the later Wittgenstein's vision of philosophy as a 'synopsis of trivialities', and it would certainly more closely approximate the reality of Twitter, which offers

fewer ladders to help us 'see the world aright' than choruses of 'Oh no, it's raining again', and 'I can see clearly now, the rain has gone', or, as Fuller likes to put it when he posts a favorite track, 'moods'.

Lisa Robertson (2011), the Canadian poet, has argued that, by leveraging what we might call Dante's Pivot to the Vernacular, poetry provides 'the speech of citizenship', a way for 'anyone' to begin to enter the 'conviviality' of the polis through a 'commodius anywhere'. She argues for an 'illustriously useless *poiesis*', a poetry, not in the conventional sense of lines on a page, but as gestures in the flow of public discourse where people meet. It is, I would submit, one that resonates nicely with Fuller's aphoristic aspirations for Twitter. 'The poem', Robertson tells us, 'is the shapely urgency that emerges in language whenever the subject's desiring vernacular innovates its receivers'. A poem, that is, is always an experiment in meaning-making. 'The urgent social abjection of the poem might act as a shelter to a gestured vernacular', she says. 'Covertly the poem transforms the vernacular to a prosodic gift whose agency flourishes in the bodily time of institutional and economic evasion'.

Elon Musk has recently called Twitter the 'de facto public town square'. Writing in the spring of 2011, however, Robertson was already well aware of what was, let's say, 'happening':

Now language and money circulate using the same medium, a grammar which is digital, horizontal and magnetic, and politically determined. Maybe all language will be eventually administrated as an institutional money: a contained and centrally monitored instrumental value. On the other hand, the digitization of value could mean that language in its vernacular expression can infiltrate and deform capital's production and limitation of social power. If it is to be the latter, then vernacular language's magnetism will reorient the polis.

Twitter's IPO was still over two years away and Bitcoin was trading at \$1. 'Keep talking about me: use #TrumpRoast to tweet about how good I look on @ComedyCentral tonight', tweeted Donald Trump. 'Hundreds of thousands of supporters have already gone to and joined the movement at shouldtrumprun.com Have you?' At this (as yet uncontrolled) intersection of our illustrious vernacular and our filthy lucre, it is perhaps appropriate to stop, to draw a line, to mark a boundary, to insist on protocol. An instrumentally aphoristic *poiesis*?

Epistemic equilibrium and symbolic spontaneity: A response to Steve Fuller

Sharon Rider

University of Uppsala

Consider the following remarks:

'Aphorisms constitute the pre-history of tweets...'

'...it is not that we know more than we can tell, it is that we know that there is more than we can tell'.

'Stoics live life as if action were a vehicle to reflection, whereas Christians live life as if reflection were a vehicle to action'.

'...aphorisms may be seen as micro-experiments in *poiesis*, incendiary moments of meaning-making (aka mind-blowing) '.

What are we to make of them? If I understand Fuller correctly, anything we like. And quite literally, since, for him, understanding is ultimately and fundamentally a matter of DIY, using available material. While the assertions are originally embedded in a complex course of reasoning (path-dependency), nothing need stand in the way of the reader (user) re-fitting the statements for other more personally customized purposes. Indeed, to cite them out of context is to liberate them, that is, to break off the path dependency of argumentation in which they are constrained as belonging to a specific *topos*, requiring certain steps to be taken in a given order. Treating

them as aphorisms rather than as bounded claims, i.e. ‘keeping all options for interpretation open’, as Fuller says, ‘suggests that they are all realizable, if not now then at some point and in some way’.

As a meta-perspective on the conditions of language and reasoning, I have no truck with the sensibility, i.e. the disposition to acknowledge that, *in theory*, anything is possible. We can think anything. There is always the possibility of veering off from received ways of thinking and talking (flouting convention), however ingrained they may be. Fuller says of Wittgenstein (and Sherlock Holmes) that he ‘sought formulations that would enable him to see beyond that to which words immediately draw attention’. It seems to me that this is a fitting description, one which echoes the sensibility of the Russian Formalists to whom Fuller also refers. Viktor Shklovsky, for instance, quite explicitly found in literary language a potential for the deautomatization of apprehension. Fuller, in turn, says that this ‘mental process’ is ‘very much like how one formulates an aphorism’. Perhaps. But all this is to say that reflective thinking is, as it were, free and spontaneous, unlike knowing something, properly speaking. Indeed the former is often at odds with the latter. What characterizes reflective thinking is that it does not necessarily aim for nor result in ‘valid knowledge’ about some (empirical) thing. Thinking as an ongoing activity does not ‘refer’ at all, even if events and objects in the world can set reflection in motion and, in part and at times, redirect it. But insofar as it is active, reflection as such has no fixed content, although it can arrive at a point at which it finds momentary equilibrium before it moves on again.

Take one of Kant’s most famous ‘aphorisms’—‘concepts without intuitions are empty, and intuitions without concepts are blind’. This is not an empirical claim about the relation between two *things*. It is rather a pithy reminder that the concept of a phenomenon entails appearance in some respect (something is apprehended). But the form is a function of reason, not sensing. The distinction between concepts and intuitions itself is not something that we arrive at through sensory experience; it cannot be perceived, but only thought. Such a remark itself is thus not part of ‘knowledge’ about the world; it is not a ‘fact’, nor a part of science. Now Kant can’t ‘know’ this, any more than Wittgenstein could ‘know’ that ‘if the true is what is grounded, then the ground is not *true*, nor yet false’. Rather, these kinds of reflections, in contrast to scientific research or a scholarly discipline, are not the result of applying some established technical apparatus. Their ‘content’ and application are nothing more than the exercise of the spontaneous human capacity for self-examination. They are ‘aphoristic’ in the same way as the comments from Fuller that I cited above are.

If I have some reservation with respect to the general thrust of Fuller’s piece, it has to do with the move from thought and expression to knowledge and science. The German mathematician Hermann Weyl famously said, ‘Expression and shape mean almost more (to me) than knowledge itself’. For Weyl, as for Shklovsky, thinking is inevitably symbolic, and it is we who provide the symbols, freely creating them and therewith constructing a common (‘objective’) world. For this reason, he thought that we needed a deeper reflection (*Besinnung*) about *our* constructions, what constitutes an experiment or measurement, and how *our* language communicates our insights. But that is an existential demand, not a technical or methodological one. Such reflection will not take the form of a statement of fact, but, like an aphorism, expresses an intellectual bearing.

Prolegomena to the restoration of aphoristic expression in education: A reply to critics

Steve Fuller
University of Warwick

Let me begin by thanking Michael Peters for the invitation to write an editorial on the tweet’s rootedness in aphorism. As my six interlocutors—David Gorman, Val Dusek, Markus Pantsar,

Babette Babich, Thomas Basbøll and Sharon Rider—emphasize, if this constitutes a ‘royal road to knowledge’, as I argue, then it’s also a twisted path. At the same time Twitter provides an infrastructure for the cultivation of aphorisms, it demystifies the nature of aphorism itself. Twitter levels a playing field that in the past would have clearly separated the sage, the propagandist, the advertiser, and the fantasist. Now all these communicators mingle freely and often indistinguishably. My point is that this simply amounts to reversal of focus from the different content conveyed by these communicators to the common form in which they communicate, the aphorism. In this respect, Twitter ‘aestheticizes’ the aphorism in a way that both Plato and Marshall McLuhan would have easily understood, if perhaps not exactly approve.

Let me start with **David Gorman**, whom I’ve known for forty-five years, when we both attended Columbia University in the heady days when French structuralist and post-structuralist work was being translated into English thick and fast. Edward Said was the rising star of the English Department and Gayatri Spivak was known mainly as the translator of Derrida’s *Of Grammatology*. Gorman was the most level-headed person in our group, some of whom were attracted mainly by French stylistic extravagances. Indeed, as an undergraduate I was part of a project to provide a ‘deconstructive’ translation of Stéphane Mallarmé’s ‘*Un coup de dés jamais n’abolira le hasard*’ (‘A throw of the dice will never abolish chance’), a Symbolist poem that attempts to spatially represent the sense of chance that it reflects upon. It was a weird and wonderful experience at the time, and it appears to have remained so (Boncardo, 2018). But Gorman wasn’t taken in. A few years later, we co-authored an article that explored appeals to book burning—from Caliph Omar in Alexandria to David Hume in Edinburgh—in specifying the role of historical consciousness in the advancement of knowledge (Fuller & Gorman, 1987).

In the context of Twitter, the topic of that early article of ours acquires new meaning, since our world is now one where the main communication platforms are not only privately owned but the founder typically wields enormous power over the disposition of the medium. Thus, founder Jack Dorsey threatened to unplug Twitter, notwithstanding its quarter-billion users worldwide, and Elon Musk’s ongoing designs for a medium he might still take over should remind us that Twitter’s status as an archive is no less precarious than the papyrus rolls in the Library of Alexandria that eventually went up in flames. Nevertheless, Gorman is clearly not an avid Twitter user. Otherwise, he would have observed that of the roughly 1500 tweets I’ve posted every year for the past eleven years I’ve been on the medium, maybe up to half might reasonably qualify as aphorisms. In other words, if they’re responding to something specific, as most tweets do, it’s not *prima facie* obvious what that might be. Yet, it works within the discipline imposed by the medium, whose carrying capacity over time has increased from 140 to 280 characters per tweet.

Gorman asks what *isn’t* an aphorism, if its distinguishing feature is sheer fragmentariness, in that more needs and could be said to complete the thought. Accepting the point, my response is twofold. First, there is a rhetorical aspect to this fragmentariness. Most fragmentary texts can be safely ignored. However, some call forth a response from the reader, who then completes the thought. This is Heidegger’s secularized Lutheran sense of the *Beruf* (‘calling’). It raises the second, more logical aspect of aphorism’s fragmentariness. The thought is completed by supplying a context that creates a systematic exchange between the said and the unsaid, resulting in a message that is implicitly understood. This was what Aristotle meant ‘enthymematic’ reasoning. The Gestalt psychologists captured this idea as *Prägnanz*, which is etymologically related to ‘pregnancy’. Put this way, it sounds—and should sound—like the stuff of ‘dog whistle’ politics. But from a logical point of view, the context-suppliers (aka ‘receptive audience’) are providing the semantics (aka a ‘second-order’ take) in terms of which the syntax of the aphorism becomes meaningful, just as the ‘ground’ defines the ‘figure’ in a Gestalt.

If you find this 1920s-style mix of metaphysics, psychology and logic too opaque, there is always the 2020s-style of thinking about the aphorism as a verbal virus—or meme—that requires hosts for its long-term survival. Some people are by default resistant to the lure of the virus

(aphorism); but if not, then vaccination (education) is available to ensure that everyone becomes resistant. Draw your own conclusions.

Val Dusek is intrigued by my claim that scientific equations can be considered aphorisms. He mainly means that aphorisms are suggestive of many things that go beyond their original sphere of application and are themselves often explicated in ways that seem aphoristic. However, I mean something historically deeper. Once mathematics came to be seen as central to the conduct of (Western) science—starting with the Renaissance’s revival of Plato, as epitomized first by Kepler and then Newton—the status of analogy shifted. It became literal, or ‘univocal’, in the medieval scholastic lingo. The default tendency in scholasticism, under the sway of Aristotle, had been to denigrate analogy as ‘equivocal’, as all language ultimately is, by virtue of humanity’s fallen animal nature. Put bluntly, we shouldn’t take what anyone says too seriously because the medium invariably obscures the message. The scholastic remedy was to epistemically privilege analogies based on similarities in sense perception (aka ‘induction’), which are durable in the normal animal mind, over analogies based on similarities revealed in intellectual abstraction, which while often capturable in mathematics, are normally grasped in only a fleeting and often illusory fashion. Of course, the scholastics routinely counted and measured, but following Aristotle, they regarded the relevant mathematics simply as reliable tools, not an ontology waiting to be revealed. Those who tended towards ‘mathematical realism’, such as astrologers, were branded heretics, and scholastics who fell under their sway, such as Oxford’s Roger Bacon, were imprisoned.

Also keep in mind that the scholastics were not famous promoters of mass literacy—though John Wycliffe, under the spell of that rogue scholastic John Duns Scotus, was the exception. His fourteenth century ‘Lollard’ followers, widely regarded in their day as half-educated ‘post-truthers’, seeded the Protestant Reformation two centuries later. And so goes the history of ‘modernity’, as defenders of the old Aristotelian Christian order still rue (e.g. Milbank, 1990). What made the sixteenth century Platonic revival so ‘modern’ was its assertion of the human mind’s capacity for direct contact with God’s mind, as opposed to settling for the Church’s official line that humans as fallen animals need to rely on their senses under normal circumstances and then trust the clergy to validate any higher order thinking that might arise under extraordinary circumstances (aka ‘miracles’). The seventeenth century ‘Scientific Revolution’, in both its (Francis) Baconian and Cartesian styles and then its Newtonian realization, was ‘Platonist’ in just this sense. In this context, analogy licenses isomorphic thinking, whereby words and numbers come to be ontologized. The multiply iconic ‘Vitruvian Man’ of Leonardo da Vinci exemplifies the implied sense of literalism. Here Leonardo presented the proportions of the (albeit white, male) human body as a mathematical microcosm of reality as whole. Put another way, in terms of my understanding of ‘aphorism’, and in the spirit of Marshall McLuhan’s ‘the medium is the message’, Leonardo treated the individual human as a version of the universal aphorism.

I’ve put **Markus Pantsar** in the middle because, while very agreeable to my thesis, is worried that the full semantic potential of aphorisms may be compromised if they are seen as merely ‘heuristic’. His concern is related to the restrictive appeal to analogy in medieval scholasticism. While I may have given the impression, in response to Dusek, that modern science has definitively overcome the medieval imagination’s self-imposed limits, this is certainly *not* the case. After all, the core feature of Thomas Kuhn’s influential account of scientific acculturation—by which he meant physics pedagogy—is that novices learn the difference between ‘correct’ and ‘incorrect’ applications of the paradigm’s key ‘symbolic generalizations’ (aka formulas and equations). Indeed, this is arguably the principal means by which science distinguishes between literal (aka factual) and metaphorical (aka fictional) usage. It enables what Kuhn called ‘normal science’ to function as a kind of metaphysical *status quo* for its practitioners. If this isn’t a high-tech version of medieval scholasticism, what is? Like a second but failed Protestant Reformation, the ‘Science Wars’ that erupted in the 1990s between normal science’s defenders

and its postmodern literary disruptors was ultimately about the latter's violation of these rules of usage, so as to confer the precious legitimacy of 'science' on what might otherwise be regarded as partisan political views. More generally, the postmodernists saw the radical openings in our understanding of reality associated with twentieth century advances in the formal sciences as licensing similarly radical thinking about humanity's social and political arrangements. As someone very much involved in the original conflict, I still wonder: What exactly was so wrong with the postmodernist interpretation (Fuller, 2006)? But that question pales in comparison to asking what is so wrong nowadays with quantum mechanics tolerating a plethora of alternative ontological interpretations, from the brutally operational to the extravagantly mystical—just as long as there is agreement on the syntax of the core formulas and equations.

With that question in mind, we can turn to **Babette Babich**, who is an interesting witness to a discussion of aphorism and Twitter because she specializes in one of the great philosophical aphorists, Friedrich Nietzsche, and is herself an avid tweeter (over 40,000 tweets in eleven years). However, as the references to her own work suggest, she takes somewhat different attitudes towards the two media. When discussing Nietzsche's aphorisms, she stresses how he exploits the medium's expressive potential. However, when discussing Twitter, she stresses its functionality in bringing about certain outcomes, based on a relatively frictionless sense of community that its users find desirable (Babich, 2016). Without denying Babich's conclusions about Twitter, I would argue that the medium is in the process of forcing everyone to realize their inner Nietzsche. Whereas Nietzsche chose to compose much of his work in aphorisms, and to great effect, Twitter forces everyone to do so—to be sure, to variable effect. But it's still early days in the evolution of the medium's aesthetic. In any case, Twitter definitely 'Nietzschifies' its users.

Now, Babich may not like this formulation because she adopts a rather 'hermeneutical' stance on Nietzsche, whereby every word is always just the right one because it refers to something that Nietzsche might have been thinking about—and which remains worth thinking about today. Thus, she thinks that there are 'right' and 'wrong' ways to read Nietzsche. Nevertheless, such an approach defeats the aphorism's *modus operandi*, which is about producing a free-floating text that is open to multiple, equally fruitful interpretations. A good way to think about this matter is in terms of hermeneutics' traditional antagonism to *translation*. Christianity is distinctive among the Abrahamic religions in explicitly encouraging translation of its Scriptures, due mainly to its keen awareness of the fallibility of those charged with inscribing the divine word. Lest we forget, when compared to the holy books of Judaism and Islam, the Christian Bible is very eclectically sourced. Even to this day, there remains disagreement about which books should be in and out, which is reflected historically in the distinctive identities forged by the various Christian and 'post-Christian' denominations.

Behind the pro-translation attitude is a stress on 'deterritorializing' the original text from its original semantic universe, which is a general feature of both aphorisms and tweets (Fuller, 2022c). In the history of Christianity, this is represented by the Epistles of St Paul, which targeted Mediterranean audiences who did not share Jesus' Jewish backstory. Indeed, other than Gore Vidal's (1992) snarky take on the Crucifixion, there has been relatively little appreciation of the significant public relations job that St Paul did to leverage the words of (yet another) failed Jewish messiah to world-historic significance. In its secularly reduced way, Nietzsche's aphorisms similarly work even when their appropriators lack Nietzsche's own profound understanding of philology and Classical culture. (Consider that Nietzsche's first English translator was the US journalist H.L. Mencken.) Babich's lifelong hostility to analytic-philosophical readings of Nietzsche arguably reflects a failure to fully appreciate the force of this point.

I next turn to **Thomas Basbøll**'s subtle take on how the exact formulation of aphorisms/tweets might circumscribe their semantic potential. Fuller (2022a) referred to Georg Cantor's revival of the idea of 'actual infinity', which in a literary context implies that there might be a way to write that allows for infinitely many interpretations while also allowing one to say that a proposed interpretation is *not* one of them. If that's possible, then one might consider the

logistics of relating various semantic infinities along the lines Cantor suggested. Much of the 'Modernist' turn in literature, linguistics and philosophy in the twentieth century—up to the likes of Alain Badiou and Quentin Meillassoux today—has been about achieving this prospect in some medium or other. To be sure, there haven't been any unequivocal successes, but the failed experiments have been often instructive in revealing the nature of the challenge. Wittgenstein's *Tractatus*, the model for the Swedish Twitter University, can be seen as a prototype for meeting this challenge by melding the virtues of logic and poetry to create a kind of 'intellectual prosody'; a rhythm to thought operating in a rule-constrained medium. I have recently reposted my original effort, including the tweets I didn't include because I couldn't fit them in the structure I had developed (Fuller, 2022b).

Consider Wittgenstein's favourite unit of analysis throughout his various phases, which he renders in German as *Satz*. In English, the words 'proposition', 'sentence' and 'judgement' are typically offered in translation. As a stand-alone item without a context, a *Satz* could mean anything. It might as well be a message in a bottle. However, once the *Satz* is embedded in some rule-constrained medium, it still possesses an indefinite number of meanings, but now certain possibilities are excluded by virtue of the rules. In this way the 'potential infinity' of the *Satz* is converted into an 'actual infinity' in Cantor's sense. Here's how Wittgenstein puts the point in *Philosophical Investigations* no. 94, which appears as follows in the latest English translation: 'Remarkable things, propositions! Here we already have the sublimation of our whole account of logic' (Wittgenstein, 2009, p. 48). (Earlier translations used 'queer' instead of 'remarkable'.) Here I take Wittgenstein to be suggesting that a proposition intimates at the domestication of semantic infinity that logic can bring, since it is crafted to be placed in one or more arguments. The most immediate way to see this is in terms of concept of 'validity' in deductive reasoning, whereby propositions are converted into premises in an argument. The argument may itself be valid without any of the premises being true, yet the premises remain meaningful simply virtue of their place in the argument.

Modernism is about just this realization at the literary level—including its seemingly absurd consequences. The Modernists and Wittgenstein belonged to the same generation, which experienced first-hand the explosion of European culture in the First World War. Carefully articulated systems of thought and ways of being the world were reduced to propositional shards and disjointed practices that had to reassemble themselves. A new prosody was required that reflected the memory of past meanings, the trauma of loss and yet also the prospect of new meanings emerging from new syntactic arrangements. The result would give a new rhythm to the old thoughts and practices. Ezra Pound and T.S. Eliot began this process in poetry, transmitting high learning, mythic echoes and bourgeois banalities in interestingly broken ways that once taken together gave new meaning to the old prose. If that isn't *poiesis*, nothing is.

Without rehearsing all the downstream effects of this development, it anticipated the studied improvisation that would come to be associated first with jazz and then Beat poetry. Samuel Beckett's conjuring of 'pataphysics' in *Waiting for Godot*, which presumes a Second if not Third World War, brings the memory aspect of this tendency to the fore, specifically as a kind of Platonic 'recollection' (*anamnesis*), a literal picking up of the broken pieces—in this case, of civilization itself. In this context, the phonic and semantic coding of *Sätze* work interchangeably to enable the significance of statements to quickly switch registers, always to an edgy and often comic effect, typically expressed in puns. James Joyce had pioneered this technique to explosive effect in *Ulysses*, and Harold Pinter and David Mamet may be regarded as domesticators of this strategy in our own time, which in Fuller (2022c) is associated with 'metalepsis'. Naturalistically speaking, behind it all is a 'parallel distributed process' model of the brain, of the sort that started with Donald Hebb's work in the 1950s and manifested today in 'deep learning' computer algorithms (Cobb, 2020, Chap. 12). Here one needs to regard the Modernist's post-apocalyptic propositional shards and disjointed practices functioning as the 'primitive sensory inputs' for such models. Twitter is a medium that caters to this sensibility, which may

prove to be a useful dress rehearsal if some global catastrophe results in the loss of our cognitive exoskeleton (aka 'information infrastructure').

Finally, I come to **Sharon Rider**, who gets to the heart of what the construction of aphorisms—'aphorising', if you will—means from a pedagogical standpoint. Her key insight is drawn from one of the original art and literary critics of Modernism, Viktor Shklovsky, whose famous 1917 essay, 'Art, as Device', proposed the estrangement (*Ostranenie*, in Russian) of the familiar as the secret to both making and understanding art. Shklovsky and his fellow Russian Formalists were especially fascinated that the great works of Western literature could be relatively easily decomposed into familiar plots, often from popular culture, which nevertheless those 'classic' authors somehow arranged and recontextualized to derive previously unseen aesthetic value. Shklovsky's insight was increasingly extended across the arts, notably in Arthur Danto's (1974) championing of Andy Warhol's *Brillo Box* as the 'transfiguration of the commonplace'. It even extends to my own general critique of the academy's highly proprietary approach to knowledge, as epitomized by its closely monitored citation-based assignment of credit, in terms of which claims to novelty and originality always arouse suspicions of plagiarism (Fuller, 2019).

The relationship of Shklovsky to the larger Modernist project discussed above is the view that there are only certain basic 'facts'—atomic elements that you may call 'propositions' or 'plots' depending on your level of analysis—that may be combined in many more ways than the ones to which we have become accustomed in history. In that case, a threefold challenge is posed: (1) identify those atomic elements perspicuously; (2) recognize the extent to which they have been so far combined in quite specific ways, which in my terms has fostered 'anaphoric' rather than 'aphoristic' expression, as trains of thought flow down familiar paths; (3) construct new combinations of the elements, in which the 'shock of the new' unpacks to mean the 'shock of the same but different'. This is Shklovsky's magic 'estrangement' moment. Put another way, it turns Freud's sense of the 'uncanny' (*unheimlich*) into something productive (aka *poiesis*).

These three points taken together provide a sophisticated, second-order formula for relating critique and progress. As a point of contrast, consider the first-order, more 'naturalistic' approach, starting with 'critical-historical' theology in the late Enlightenment and weaponized today as 'postcolonial' historiography. Here critics demystify the past by showing that it didn't happen as presumed, especially in terms of legitimizing the current social order. However, the critics themselves lack the resources to show the way forward because their energies have been exclusively focused on trying to write some sense of 'justice' back into the historical record. The second-order, Formalist move against this is to say that the past, however understood, is simply one, albeit the entrenched version of how the world could have been—and could still be. In other words, it is about not fetishizing history as if it were the ultimate reality. Moreover, this is not merely a logical point, though it happens that the philosopher who coined 'entrenchment' to refer to our default ways of configuring the world—Nelson Goodman (1955)—may have well been the greatest analytic aesthete of the second half of the twentieth century (Goodman, 1968).

In any case, 'art'—indeed as device—reverses such entrenchment. Thus, the understood past is recontextualized to unleash its unrealized potential. Here memory is treated as an unconscious reservoir for revealing new ways to see the world, which then provides a template to be enacted on the world at large, be it in 'art', strictly speaking, or in advertising. This second-order approach is what connects, on the one hand, Picasso and Dalí and, on the other, Bernays and Maslow. (Perhaps not by accident, the two paintings I have on the wall of my UK flat are copies of Picasso's *Guernica* and Dalí's *The Persistence of Memory*.) All four partook of the same Modernist aesthetic that descended beneath the surface meanings of lived experience into some envisaged 'atomic' unconscious, only then to resurface in an expressive reach for a sublime alternative reality. Contemporary neuroscience tracks this sensibility, notably in Eagleman (2009). And it connects the Weimar era philosophical projects of the logical positivists, the Frankfurt School and Heidegger, who are normally seen as radically different—and certainly are in terms of their

respective weighting of the visual vis-à-vis the aural as media of thought transmission, where the positivists privileged the former, the Heideggerians the latter, and the Frankfurters sandwiched in between.

This finally brings me to Rider's own pedagogical provocation, which effectively identifies 'knowledge' with anaphoric and 'thinking' with aphoristic expression. Behind this move lies a subversive quasi-Wittgensteinian reading of Kant, whereby knowledge is associated with the determinate character of the world, or the *Sätze* to which determinate truth values can be assigned. For Rider, such settled propositions, while perhaps justifiable and authoritative, have acquired a facticity that removes them from the activity of thinking as such. Thus, one may acquire 'knowledge' in this sense without ever having given much thought to it. 'Giving thought to knowledge' amounts to considering the conditions of its possibility. (Thirty years ago, I would have said, 'opening the black box!') This would mean examining the opportunity costs incurred in the pursuit of inquiry—that is, 'thinking' in its sociological guise—that has resulted in a restricted set of possibilities counting as knowledge. Whereas anaphoric expression is equipped to reveal the decisions taken to advance inquiry towards that conclusion, aphoristic expression flips that perspective to enable one to see all the possibilities that were lost in the process. To be sure, these possibilities may themselves be mutually exclusive, but at least one might hope to see them in their original fullness, even if they could never have been realized as such. Clearly, this is an argument for the cultivation of counterfactual imagination in pedagogy, especially to realize what Robin Collingwood originally described as the 're-enactment' of history, which he understood as the history of thought (Fuller, 2015, Chap. 6).

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