

Schelling and Active Matter

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I.

“Active matter” may be new to think with, but the “activity of matter” has been thought about for a very long time. The history working group within the research project *Conserving Active Matter* brought us voices from Buddhism, ancient Greece, and Kabbalah, as well as from the European “underbellies” of magic and alchemy. But wait, why “underbellies”? Because we all tend to walk around with certain default categories that make thinking about the activity of matter seem marginal, or even “New Age-y.” But read a little, and it turns out that far from there being a pitifully small fringe of radical spiritualists digging in against the irrefutable common sense of the Cartesian-Newtonian universe, there is actually a significant philosophical debate *that has persisted up to the present* about the possibility of matter’s activity. “Active” and “passive,” “Being” and “Becoming,” “Subject” and “Object,” “dualism,” “spirit,” “hylozoism,” “ontology,” “Spinoza,” “anti-Cartesianism,” “self-organization”—all terms that would appear in the tag cloud of the *Conserving Active Matter* exhibition or its family resemblance—are found in the work of Friedrich Wilhelm Joseph Schelling (1775–1854). His oeuvre is vast (fourteen volumes), his career long (he wrote his first work, an essay on Plato’s *Timaeus*, at nineteen and took over the vacated chair of his friend-turned-nemesis, Georg Wilhelm Friedrich Hegel, in Berlin forty-seven years later), and his work very complicated. But with all these key axes passing through his thought as if through an inevitable railway junction, Schelling is a stop we need to make on our way to understanding active matter. His work anchors the twenty-first century’s new thinking to the vast iceberg of older thought beneath the surface.

What follows is intended as a sketch and provocation rather than anything definitive. It ought not to be seen as an intervention in any Schelling wars. Indeed, I can only hope that this might catch the attention of those who devote themselves to his work and who will be better able than I to fill in the arguments I can only outline, as well as to add other and more powerful ones. I will conclude by showing how an existing body of literature tracking Schelling’s reception in the natural sciences actually could be viewed as an unacknowledged, embryonic history of active matter. With it, we are that much closer to a substantial and *real* philosophical counterhistory of matter.

II.

Schelling’s work on philosophy of nature is the key context. This was an especially important theme early in his career, and it never entirely faded. *Ideas for a Philosophy of Nature* (1797, revised 1803) and *First Outline of a System of the Philosophy of Nature* (1799) put nature at the center of philosophy. Philosophy, he writes, “is nothing other than a *natural history*.” Schelling draws from this the conclusion that we need to view “the system of our ideas, not in its *being*, but in its *becoming*.”¹ Only a relational perspective that avoided dichotomization could be adequate to nature.

“No inquiry,” he wrote, “has been surrounded, for the philosophers of every age, by so much darkness as that concerning the nature of matter.” And yet, he thought, for philosophy to be “true” it had to understand matter, which was “the general seed-corn of the universe.” He puts it another way: “‘Give me an atom of matter,’ the philosopher and physicist might say, ‘and I will teach you from thence to

apprehend the universe.” That this was a very difficult topic could, he wrote, be surmised from the fact that “matter, in by far the majority of so-called systems, has been assumed as a mere given, or postulated as a manifold, which has to be subordinated to the supreme unity, as an existing stuff.” On the one hand, an assumed dualism; on the other, he continued, an “imperfectly grasped relationship of the absolute world to the world of appearance, of Ideas to things,” which has made “unrecognizable the seeds of true insight into the nature of matter that were contained in them.”²

Schelling described as “a powerful dream” the notion that “dead matter is a *sleep* of the intelligent forces, that animal life is a *dream* of the monads, that the life of reason is finally a state of general wakefulness.” In it, reason alone is active. “But what good,” he concludes, “is this dream of physics?”³ Newtonian physics is blamed for treating matter as “dead” in order to do its work. But if it is all a dream, then what? In fact, later in his “Lectures on the System of Positive Philosophy” (1832–33), he arraigned the heroes and the ideology of the New Science.

True empiricism thus does not necessarily deny everything super-natural. Beginning with Kant it has become customary to explain everything supersensible as super-empirical. After Kant, God has taken refuge in pure thinking, posited in a way that excludes all experience. However, such an empiricism that denies everything supersensible was not the empiricism of a Bacon, of a Pascal, or of a Newton. Read the final Scholia in [Newton’s] *Philosophiae Naturalis Principia Mathematica* and the letters exchanged between Leibniz and Clarke (Newton’s pupil). Even John Locke believed that he was not committed to excluding God because of his empiricism.⁴

Schelling denies the dogma of modern times, the one that stipulates an empiricism of the eye. He disagrees, there being much more in heaven and earth than is dreamed of by most philosophers. “The true principle of empiricism, genuine empiricism,” he continues, “is what infers the existence of God as much as all other personalities from experiential marks.” He suggests that those who disagreed should reread their Hume.⁵

Just to give a taste of the complexity of Schelling’s thought: he didn’t shy away from talking in terms that sound more like Kabbalah than empiricism.⁶

Something inhibiting, something conflicting, imposes itself everywhere: this Other is that which, so to speak, should not be and yet is, nay, must be. It is this No that resists the Yes, this darkening that resists the light, this obliquity that resists the straight, this left that resists the right, and however else one has attempted to express this eternal antithesis in images. But it is not easy to be able to verbalize it or to conceive it at all scientifically.⁷

“Idealism” denied this primordial negating force. But without it “God is that empty infinite that modern philosophy has put in its stead.”⁸ Though this may sound theosophical rather than mechanical, in Schelling’s *The World Soul* this struggle of forces is said to lead “to the Idea of an *organizing, self-systematizing principle*.”⁹

Nature was “active from the inside outward like the most levelheaded artist.” And once Schelling described nature this way, he also had to discard the assumption of its inactivity. “Who could doubt this if they noticed how, even before nature unfolds the actual soul, that already in so-called dead matter each shape and form is an impression of the inner intellect and knowledge.”¹⁰ It was “one and the same substance” that connected the corporeal and the spiritual. “The single system in accord with natural thinking is that spurned one of the so-called *influentus physicus* which admittedly had to be abandoned as soon as matter and spirit were brought into that unholy (incurable) Cartesian conflict.”¹¹

Matter is one. Schelling transcends Descartes’s denigration of matter in favor of mind by positing that a “whole life process is founded on this bipartite quality of that which we call matter and of that inner side, averted from our senses, that we intimate but do not discern. An image or inner spirit of life constantly emerges out of the corporeal and it always again becomes embodied through a reverse process.” Far from claiming this invention of active matter as his own, Schelling goes on to assert that “[t]he belief in the general capacity of matter again to be elevated into spiritual qualities has been retained through every age with a constancy that alone would already allow us to infer its deep ground and which so coheres with the dearest and ultimate hopes of humans that it could probably never be eradicated.” And then he names it: “One must let the rabble have the conventional concept of alchemy.” His, by implication, is the real alchemy, or like alchemy. Examples of matter that lives, or comes to live, include foodstuffs being transmuted into nutrition and the fetus into life. “Everything that occurs around us is, if you will, a constant alchemy.”¹²

Schelling tried to explain how this worked. What was involved was a kind of speculative physics—he created this term in the midst of his period of concentrated thinking about nature (*Introduction to the Outline of a System of the Philosophy of Nature, or, On the Concept of Speculative Physics and the Internal Organization of a System of This Science*, 1799). Motion, he wrote, is communicated by bodies at rest. “Now every motion produced by *impact* is called *mechanical*, but motion produced by the body *at rest* in *what is at rest* is called *chemical*; so we would have a hierarchy of motions.” Recall earlier that he sought out the term “alchemy” to refer to the magic of active matter. “Mechanical motion presupposes parts at rest in the moving body; chemical motion, on the contrary, motion for the parts in a body that does not move.”¹³

Schelling, in turn, described dualism as “an inherently necessary and necessarily recurrent expression of the modern era,” and, as such, “bound to be its dominant philosophy.” Dualism was a product of both push and pull. The “pull” may have come from the explanatory power of science. But the “push,” he thought, came as “the old political institutions and even the idea of a universal church lost their hold on men’s minds, the divine principle withdrew from the world; and visible nature came to be conceived of as the soulless body of the finite.”¹⁴

Schelling wonders aloud why matter is generally treated as mute and passive. “What is it, by the way, about corporeality that so offends spiritual arrogance that it regards corporeality as of such humble descent?” He has no answer beyond that “lowliness” itself. But he does add, in words that point us directly to Rainer Maria Rilke and the ninth of the *Duino Elegies*, that “the lowly is precisely highly respected in the eyes of the one according to whose judgement alone the worth and worthlessness of things is determined.”¹⁵

Having worked all this out, Schelling could observe “that the main weakness of all modern philosophy lies in the lack of an intermediate concept and hence, such that, for instance, everything that does not *have being* is nothing, and everything that is not spiritual in the highest sense is material in the crudest sense, and everything that is not morally free is mechanical, and everything that is not intelligent is uncomprehending. But the intermediate concepts are precisely the most important concepts, say, the only concepts that actually explain anything, in all science.” It is the intermediating “concept” that vitiates the need for dualism as an explanatory mechanism.¹⁶

Some of these topics appear in the discussions in Schelling’s *Clara*, whose eponymous character speaks for the priority of soul, and her interlocutors, a priest and a doctor, defend body and spirit, respectively. The “real dreamers,” Schelling writes in a kind of preface, “are without doubt those who regard the world of science as a great empty space wherein each person in his own peculiar way can record whatever takes his fancy.”¹⁷ Into the mouth of the priest is put the standard dualist move: if only spirit weren’t attached to lowly matter, everything would be fine. To which the doctor replied, “with such a complete separation . . . you must also reject any concept of that higher world”—in other words, the price of dualism is an evacuated meaningscape.¹⁸

In an extended, extraordinary image of antiquarian exploration, Schelling’s doctor paints a vision of how even at our most open and adventurous we humans miss what is right before our eyes because of these dualist assumptions.

Oh, the true ruins are not those of ancient human splendor that the curious seek out in the Persian or Indian deserts; the whole Earth is one great ruin, where animals live as ghosts and men as spirits and where many hidden powers and treasures are locked away as if by an invisible strength or by a magician’s spell. And we wanted to blame these powers that are locked up rather than thinking about freeing them within us first?

Most people, however, are completely captivated by external appearances and think that it is therein that it is to be found. Just as farmers creep around an old, destroyed, or enchanted castle with divining rods in their hands, or shine their lamps into chambers buried underground, and even go with crowbars and levers in the hope of finding gold or other valuables: so, too, does man go about nature, entering some of her hidden rooms and calling this search “natural science.” But the treasures are not covered by rubble alone; the treasures have been locked up in this very wreckage and rocks themselves by a spell that only another magic charm can undo.¹⁹

Schelling’s own marginal note to this passage is even more thrilling. What does he find in this philosophical “Underland”? “A completely different world buried therein than we suspected. Odyssey of the Spirit.”²⁰

Clara’s response to this vision? “I have suspected such a magical connection of man to nature for a long time.”²¹

What was true of visible nature was as true of human nature; the same spirit “must be present within us insofar as each of us, too, is a whole person.” And since the thing which does the connecting must be part of both things it connects, thus spirit and body have to be connected, as if the spirit “descends right down to the body with its lower part, merging into material being.” A consequence of this vision of matter, and wholeness, for science was that “the external world would not need experience and painstaking research in order to gain knowledge about things.” The innate connection between self and subject provided a new opportunity for research.²² In fact, this doubled, but not dualist, vision of matter and spirit Schelling sees as the basis of science—it is his own *Wissenschaftslehre*.

This cision, this doubling of ourselves, this secret circulation in which there are two beings, a questioning being and an answering being, an unknowing being that seeks knowledge and an unknowing being that does or does not know its knowledge, this silent dialogue, this inner art of conversation, is the authentic mystery of the philosopher. From the outside this conversation is thereby called the dialectic and the dialectic is a copy of this conversation.²³

“Matter” was the context for “the eternal dichotomizing into subject and object.”²⁴ But, in fact, matter was the opposite, it was the site for the union of all things.

Matter, absolutely considered, is therefore nothing else but the real aspect of absolute knowing, and as such is one with eternal Nature herself, wherein the mind of God, in eternal fashion, works infinite into finitude; to that extent, as the whole begetting of unity in difference, matter again incorporates all forms, without itself being like or unlike any one of them, and as the substrate of all potencies is not a potency itself.²⁵

Matter was a form of nature, a “congealed” form that we call “being.” Nature itself was “the plastic aspect of the universe.” Even “the pictorial art kills its Ideas, and transforms them into corpses.”²⁶ If matter was active, mind was nature. In his *System of Transcendental Idealism* (1800) Schelling expressed this as poetry. “What we call nature is a poem encoded in secret and mysterious signs, but if the riddle could be solved, we would recognize in nature the Odyssey of the mind.”²⁷

Nature, being plastic, was a way to talk about activity. So was “productivity,” which connected all parts of nature, the human and the nonhuman. It is this that links Schelling’s writings on *Naturphilosophie* with the exactly contemporaneous *Is a Philosophy of History Possible?* (1798). Nature as repeating and regular was not history, so Schelling’s commitment to a philosophy of nature could only be squared with a commitment to the possibility of a philosophy of history *if* nature could be redefined as “progressive” regardless of its regularity. In Schelling’s schema, this was the work of “productivity.”²⁸

A footnote in his *First Outline of a System of the Philosophy of Nature* (1799) opens a window into Schelling’s fecund intellect. “The productivity of Nature is absolute continuity.” From this general point he draws the conclusion that all things in nature are connected, but through the notion of productivity he sees that this connection will not be mechanical, or linear. “For this reason we will present that graduated series of organisms not mechanically, but rather dynamically, that is, not as a graduated series of products, but as a graduated series of productivity. *It is but one product that lives in all products.*” And then from this conclusion, he jumps to the furthest, and most extreme conclusion

possible: “The leap from polyp to man appears gargantuan to be sure, and the transition from the former to the latter would be inexplicable if intermediate members did not step in between them. The polyp is the simplest animal, and the stalk, as it were, out of which all other organisms have sprouted.”²⁹ There is no reason to assume Darwin—or his fellow evolutionist Alfred Russel Wallace—would have known this; the point is that Schelling is developing a philosophical way of accounting for a nature that could operate in terms of “natural selection.”

A still further development of this same idea takes him toward what we would now describe as the quantum realm. In his very late *Presentation of the Purely Rational Philosophy* (ca. 1847), Schelling explained that “in the intelligible world every essence has its place by necessity, but it is not space that determines its position, but time. Each intelligible space is an organism of times, and this inner, thoroughly organic time is true time.”³⁰ This is a striking example—and there are others—of a formulation of Schelling’s that might have seemed preposterous to contemporaries but which has come to seem more plausible in the light of subsequent scientific discoveries.³¹

All this, Schelling drew from reflecting on nature’s activity. He was at pains to distinguish his vision from historical hylozoism. In his *Darstellung des Naturprocesses* (1843–44) Schelling pointed out that hylozoism painted with too broad a brush because it lacked an underpinning in philosophical theory. It could not, for instance, answer the question why “life in the particular sense as it is ascribed to organic beings does not appear as a general property of matter; for the common view that everything is alive would be a mere excuse, since everyone admits, by the way, that the dullest organic creature still lives in a completely different way than the mineral, whose symmetrical regular formation is, incidentally, something that cannot be explained from mere matter in the Kantian sense.”³²

If Schelling felt the need to distinguish himself from hylozoism that might be because, at least from the outside, his philosophy appeared similar. He wanted to push back against idealism in all its forms, including transcendental philosophy, because it relegated nature to “nothing more than the organ of self-consciousness.”³³ Since Descartes, dualism reigned almost unopposed. “Even” Leibniz could not but express himself in a way that accommodated dualism. For Fichte, nature was “object,” or “non-self.” Spinoza was the only obvious alternative. In 1795, Schelling had written to Hegel, who was at that time still a friend, “I have become a Spinozist.”³⁴ In his *Lectures on University Studies* (1802) Schelling commented that “down to our own day there has been no philosophy to oppose it [dualism] (apart from Spinoza’s).”³⁵ He described his views as “the *Spinozism of physics*.”³⁶

In his *Exposition of My System* (1801), Schelling rejected Fichte’s subjective idealism and refused to subordinate matter to spirit or spirit to matter. This immediately put Schelling in the camp of those contemporaries who found inspiration, or confirmation, in Spinoza. Two years later, he wrote: “The great example that Spinoza bequeathed philosophy, through his usage of the geometrical method,” he wrote, “instead of spurring on the perfection of that method, actually had the opposite effect.” People who “did not understand this great mind, searched for the source of its errors.”³⁷

For Schelling, whatever his later qualifications, “Spinoza deserves serious consideration. Far be it from us to deny in Spinoza that for which he was our teacher and predecessor. Perhaps, of all the modern

philosophers, there was in Spinoza a dark feeling for the primordial time of which we have attempted to conceptualize so precisely.” Spinoza was “the only heir to true science in all of modernity.” Surveying the history of philosophy, Schelling concluded that “Descartes, the founder of modern philosophy, lacerated the world into body and spirit and hence, the unity was lost in favor of duality. Spinoza had unified them into a single, albeit dead, substance and had lost duality in favor of unity.”³⁸

Schelling observed that the association of Spinoza with pantheism and pantheism with lack of freedom worked against the philosopher’s teachings. He argued that, on the contrary, “[a]bsolute causality in One Being leaves only unconditional passivity to all others.” He is arguing that the natural feeling of freedom—we might think in terms of agency—militated against imagining an almighty deity who had gathered up all power so that all other beings had none.³⁹ Schelling rejects various interpretations of Spinoza, including “the German one” that “heaps Gods together with things, the created being with the creator” and which creates a blind necessity driving all things, animate and inanimate. He explains that this version of Spinozism was used to frighten people back into obedience to authority (the “abyss”): either by twisting pantheism to imply that things and God were identical and thus no activity was possible, or that there was a God distinct from nature but that only God was active and everything else merely passive. Schelling saw his theory as providing a way out of this trap. “What, then, does one understand by Spinozism?” Schelling saw it as a less developed version of what he himself was proposing. “One could look at the rigidity of Spinozism as at Pygmalion’s statue that had to be made animate through the warm breath of love,” or like “the most ancient images of divinities which appeared that much more mysterious the less their features bespoke individuality and liveliness.” “In a word,” Schelling concluded, “it is a one-sidedly realist system.” If one could take Spinoza’s “basic concept” and infuse it with spirit, one would see that “out of this grew the philosophy of nature.”⁴⁰

III.

Schelling has had a complicated reception history—complicated by the complexity of his own language, by his extensive production, by the diversity of that production (from published treatises to manuscript lecture notes), and by the contrariness of his thinking in an age dominated by natural science and disinterested in philosophical foundationalism that was not epistemological. Nevertheless, coming at Schelling’s texts from the vantage point of *Conserving Active Matter*, it seems clear that his historical vision of Descartes promoting a sharp dualism, and his own philosophy of nature as an integrative, remedial spiritual force, gives him a central place in any future reconstruction of the history of active matter.

Schelling’s Naturphilosophie has sparked renewed interest in recent decades. Scholars coming from the direction of the life sciences have recovered from its obloquy the deep and decisive impact of Schelling’s thinking on biology and chemistry in nineteenth-century Germany and, thus, the twentieth century everywhere else.⁴¹ A key principle around which this body of scholarship has aggregated is “self-organization.”⁴² Up to now, however, while self-organization has been one of the lenses through which the modern study of “active matter” has looked, no one has made the connection to Schelling. Similarly, those who study Schelling have not connected his work with the “new,” engineering-driven discourse of active matter.⁴³ There is, thus, a real opportunity for historians and philosophers of science to work from Schelling toward active matter and from active matter back toward Schelling and the richness of Naturphilosophie. This will not only help us continue to discover new sides of Schelling’s

thought, but also contribute to providing a new philosophical genealogy for tomorrow's philosophy of science.

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Notes

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¹ Schelling, *Ideas for a Philosophy of Nature*, 30.

² *Ibid.*, 179.

³ Schelling, *First Outline*, 132.

⁴ Schelling, "Lectures on the System of Positive Philosophy," 202.

⁵ *Ibid.*

⁶ Franks, "From World-Soul to Universal Organism"; Franks, "Mythology, Essence, and Form"; Schulte, "Zimzum in the Works of Schelling."

⁷ Schelling, *Ages of the World*, 6.

⁸ *Ibid.*

⁹ Schelling, *World Soul*, quoted in Grant, *Philosophies of Nature*, 145.

¹⁰ Schelling, *Ages of the World*, 56.

¹¹ *Ibid.*, 62.

¹² *Ibid.*, 63.

¹³ Schelling, *Ideas for a Philosophy of Nature*, 148.

¹⁴ Schelling, *Lectures on University Studies*, 67.

¹⁵ Schelling, *Ages of the World*, 63.

¹⁶ *Ibid.*, 64.

¹⁷ Schelling, *Clara*, 6.

¹⁸ *Ibid.*, 13.

¹⁹ *Ibid.*, 24–25.

²⁰ *Ibid.*, 25.

²¹ *Ibid.*

²² *Ibid.*, 33, 42–43.

²³ Schelling, *Ages of the World*, 36.

²⁴ Schelling, *Ideas for a Philosophy of Nature*, 179.

²⁵ *Ibid.*, 180.

²⁶ *Ibid.*, 181.

²⁷ "Was wir Natur nennen, ist ein Gedicht, das in geheimer wunderbarer Schrift verschlossen liegt. Doch könnte das Räthsel sich enthüllen, würden wir die Odysse des Geistes darin erkennen." Schelling, "System des transcendentalen Idealismus," 628. The translation is mine.

²⁸ Heuser-Kessler, "Schelling's Concept of Self-Organization," 401; Grant, *Philosophies of Nature*, 48–49.

²⁹ Schelling, *First Outline*, 43n.

³⁰ Schelling, *Presentation of the Purely Rational Philosophy*, 145.

³¹ He himself derived inspiration from these same discoveries, as emerges most clearly in his lecture of 1832 "On Faraday's Most Recent Discovery," in *The Schelling Reader*, 110–17.

³² Schelling, *Darstellung des Naturprocesses*, quoted in Heuser, "Wissenschaft und Metaphysik," 52.

³³ Schelling, *First Outline*, 194.

³⁴ Quoted in Woodard, "Schellingian Thought for Ecological Politics," 99. See more generally the section he devotes to "Schelling and Spinoza," 99–103. Schelling grew up in an intellectual world shaped by Jacobi's provocative *Über die Lehre des Spinozas* (1785) and the responses to it.

³⁵ Schelling, *Lectures on University Studies*, 67.

³⁶ Schelling, *First Outline*, 194.

³⁷ Schelling, "On Construction in Philosophy," 170.

³⁸ Schelling, *Ages of the World*, 104–5.

³⁹ Schelling, *Philosophical Investigations*, 12: "That the fatalistic sense may be connected with pantheism is undeniable; but that this sense is not essentially connected with it is elucidated by the fact that so many are brought to this viewpoint through the most lively feeling of freedom. Most, if they were honest, would confess that, given how their ideas have been

formed, individual freedom would seem to them to be inconsistent with almost all properties of a highest being, for example, with omnipotence.”

⁴⁰ *Ibid.*, 11, 19–21.

⁴¹ This begins with Hasler, *Schelling*; Gare, “Overcoming the Newtonian Paradigm”; Heuser, “Space Philosophy.” For some of the background to the marginalized history of Naturphilosophie in German, see Gregory, “Kant, Schelling.”

⁴² Heuser-Kessler, *Die Produktivität der Natur*; Heuser, “Wissenschaft und Metaphysik”; Heuser-Kessler, “Schelling’s Concept of Self-Organization”; Heidelberger, “Selbstorganisation im 19. Jahrhundert”; Heuser-Kessler and Jacobs, *Selbstorganisation*. Bernd-Olaf Küppers rejects the association of modern and Schellingian self-organization in *Natura als Organismus*. For a review of this literature, see Warnke, “Schellings Idee und Theorie des Organismus.”

⁴³ For instance, in the highly self-aware *+Ultra*, Schelling goes almost unmentioned, even in the philosophical essays, including those that refer to self-organization. There is but one footnote referring to Schelling’s speculative physics. There is no mention of the large German literature on Schelling and self-organization. Doll, Bredekamp, and Schäffner, *+Ultra*, 59n10.