

Polanyi’s Relevance for the Future of Philosophy: Charting Revolution and Renewal through AI and Body-Knowing

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The theme of this conference is “The Relevance of Michael Polanyi for the 21st Century.” I submitted two related proposals that I’d like to combine, with a little help from Marjorie Grene and Maurice Merleau-Ponty. Together these proposals bring out the important concepts of tacit knowing and embodiment. The first proposal, “Rise of the Machine,” shows Polanyi’s relevance to the question of human intelligence and freedom in this new age of Artificial Intelligence. The second, “Taking back the NOW,” connects tacit knowing and emergent being in body-knowing and strikes deep into Polanyi’s revolutionary relevance for philosophy in the 21st century and beyond.

Rise of the Machine

In “Rise of the Machine: Body-Knowing, Neural Nets, and Emergent Freedom,”¹ I bring out the strong similarities between Polanyi’s structures of tacit knowing and connectionist (also known as “neural network”) architectures, which have been behind the breakthroughs in AI’s recent jump forward—since these architectures are used in the development of Large Language Models, Chatbots, and so-called “AI Agents.” While computer scientists, in the 20th century, were focusing on “symbols and rules’ approaches and conventional logic—that go together with Chomskian ideas of “generative grammar” and a “language of thought” (LOT) approach—Polanyi was prefiguring connectionist and neural network models with his structure of tacit knowing. The recent advance in the development of AI is thus a strong validation of Polanyi’s insights as to how knowing actually happens and how meaningful language develops.

For Polanyi, it is the ability to have tacit knowledge that separates us from computers and machines, which operate by explicit principles and processes. But this structure is not just mental, it is displayed in perception and in bodily skills. So, in my paper I show how connectionist systems not only better model cognition and language use, but also the exercise and training of the body’s habits. Bodies, too, display the structure of tacit knowing, and a preliminary form of intentionality and creativity, and set the basis for the emergent freedom and agency that we possess. Polanyi’s tacit structure creates a new boundary between the possibilities of living systems and causally determined mechanical systems.

But the strong similarity between AI computing and tacit knowing in mind and body raises important questions: Because an AI machine can better *mimic* human thinking (answering questions intelligently) and human skills (driving a car; practicing a physical art) does that mean that we are *merely* machines, and our agency and freedom are epiphenomenal illusions?

I answer that this advancement in machine “learning” does not reduce us to fully determined by physical and chemical causes, but our ability to dwell in our bodies and experience intention and

meaning, makes us—and other animals—different from dead matter and electro-mechanical artifices. What makes us different is the ability to *dwell in* our bodies and to *experience* this *from-to* intentional presentation of focal meanings.

In “Rise,” I begin to show how the emergent levels of body, mind, and culture give us freedom to act, and also give us a value, that non-biological connectionist machines do not possess. For this current paper, I will focus on the “NOW,” as a natural extension of “Rise,” since it shows how Polanyi forestalls postmodern relativism, and it fleshes out this moment of embodied awareness; it digs deeper into the indwelling that *we do* that even connectionist machines cannot.

Taking back the NOW

The full title of the second proposal was “Taking Back the NOW: How Polanyi’s Post-Critical Epistemology Saves Philosophy from Derrida’s Deconstruction.” Here I would discuss how Polanyi’s understanding of *tacit knowing* and *in-dwelling* acts as a response to Jacques Derrida’s criticism of Edmund Husserl’s phenomenology, and how Polanyi’s approach can thus save philosophy from jumping from the frying pan of untenable objectivist expectations into the fire of postmodern relativism.

The common link between the two papers (“Rise” and “NOW”), is the important entwinement between tacit knowing and emergent being in our embodiment, which allows us to understand and experience being. These set the basis for what Grene called a *revolution* in epistemology, which allows for what she called a *renewal* in metaphysics.²

By combining these proposals into this current paper, I will be emphasizing the importance of the structure of tacit knowing and its embodiment in our experience and understanding of being. This will show some similarities and divergences between AI’s and humans, and also some similarities and differences between Polanyi and Merleau-Ponty, who together emphasize how embodiment and participatory realism point the way forward for philosophy. As Grene says of Polanyi and Merleau-Ponty, they present “...two major ways of philosophizing toward a similar outcome” (Revolution, 164).

2400 Years of the “Metaphysics of Presence”

To see the revolutionary importance of Polanyi in the history of philosophy, and also to get a sense of Polanyi’s affinities and to Maurice Merleau-Ponty, we need to look briefly at Martin Heidegger, and follow him back to Husserl then forward to Derrida.

Heidegger indicted the entire history of philosophy as a “metaphysics of presence.” For Heidegger, this misguided approach to thinking began with Plato and Aristotle, and it generated a 2400 year diversion away from *the* most important philosophical question: the ontological question of *Being* . Instead, we were distracted with ontic questions about *beings* , and how they relate to and affect each other causally, and we missed the way in which beings were manifesting Being. We missed how beings are brought out into the light of existence via the *ek-sistenz* (standing out) of *dasein* (there-beings, what we typically call human beings) in time.

The “metaphysics of presence” also emphasized a notion of the re-presenting of reality in representation, in ideas or signs. This re-presentation emphasized *logos*, as both logic and the grammatical structure of language, which further crusted over and confined Being and its possible manifestations for *dasein*. So, philosophy focused on the ontic (beings) rather than Being, and on giving a fully present picture of a fully present, atemporal things in language.

Heidegger sees the culmination of this onto-logo-centric metaphysics of presence (the “onto-” here, emphasizes an ontology that emphasizes an “ontic” being as a foundation for philosophy, be it a substance, God, or the subject, rather than Being) in the positivist philosophers whose logocentric approach saw no sense beyond the pronouncements of scientific facts. These logical empiricists (Early Wittgenstein, Carnap, A.J. Ayer) would thus regard Heidegger’s foundational metaphysical questions, such as “What is Being?” or “Why are there beings at all instead of nothing?”³ as *nonsense* (*unsinnig*)—or, at best, as a category mistake.

To The Things Themselves!

Heidegger reached back the pre-Socratics for a more originary account of Being, but he also followed Husserl in using the “phenomenological method,” which valued description over explanation, to help manifest the possibilities of Being. But Husserl and Heidegger each used the phenomenological method toward different goals.

Husserl, like Heidegger, opposed the approach of the logical positivists. He saw a crisis in the foundation of the sciences, and he aimed to repair it. He was on a quest similar to that of Descartes. He wanted to rebuild all knowledge from unquestionably certain foundations, while at the same time correcting for some of the prejudices and errors of Descartes that helped forge the path towards positivism. For rebuilding philosophical foundations, Husserl needed unquestionable building blocks, and those foundational blocks are the *things* and their eidetic essences that give themselves to us in experience. If we properly apply the phenomenological reduction, we get “to the things themselves”⁴ and *their* meanings.

From one point of view, Husserl’s ambition here can be seen as another culmination of the metaphysics of presence: The quest to reach objective certain knowledge and build from firm foundations for philosophy and then for science. But from another point of view (Heidegger’s) as Husserl endeavors to get us to the things themselves, he is breaking beyond presence as an atemporal static image or idea. The phenomenological reduction or *epoché* breaks the notion of an essence or idea as re-presenting some thing beyond experience, and brings us to the givenness of a thing. For Husserl when we experience perspectival aspects of a thing, we intend the fullness of the thing and *its* meaning. Husserl would thus bristle against the logocentric approach that begins with the idea that, as Wittgenstein put it, “The world is the totality of facts not things” (*Tractatus* 1.1). To put facts, or propositions, first is the exactly wrong place to start for Husserl; it suppresses the truth of the things. Language needs to be adequate to the truth of thing before we craft propositions about their relations post-predicatively.

For Heidegger, this moment of presence in the present is evidence that there is more to Being than that which can be re-presented in the subject-object grammar-logic of language, which valorizes the role of *logos* in a metaphysics of presence. In the raw moment, we can shake Being

loose from its onto-logo-centric chains and see the limitations of any science. But also, for Heidegger, when an aspect of Being is unveiled, other possible manifestations become hidden. For Husserl, in contrast, in that moment of presence we can find and know beings fully, and we can have *evidence* upon which to build a new science of meaning with a new truth.

As Derrida points out, however, those things and essences could only be relied upon as a foundation for truth because they can be given to us in the present moment of perceptual experience—in the NOW—without distorting mediation.

So now I will focus on Derrida’s criticisms of Husserl’s NOW, because it is a pivotal point in the history of philosophy. Derrida shows how Husserl recognizes—but dismisses—non-presence in the very apotheosis of presence. By deconstructing the NOW, in *Speech and Phenomena*, Derrida believes he delegitimizes the entire project of philosophy by undercutting entirely the 2400-year reign of the “metaphysics of presence.” This is the source of his brand of postmodernism in which all that we would hope to hold fixed in the way of knowledge dissolves into the “différance” (difference and deferral) of unknowable traces.⁵

Polanyi and Merleau-Ponty will both come to the rescue of truth here, as they lead us away from material reductionism and the dissolution of meaning. But they each redeem philosophy and real meanings and value in different ways that Grene will recognize as different forms of realism.

The NOW and Its Deconstruction

So, let’s get back to the NOW. After Husserl performs his phenomenological reduction and brackets out (with *epoché*) the questions of a “transcendent reality” (that concocted an abyss between consciousness and things) and the presuppositions of the “natural attitude” (which conspired for a science that leaves no room for value or meaning), he saw more clearly the phenomena of experience. He also saw that this experience is a transcendental clue back toward the way consciousness must perceive that experience; this is “transcendental” in Kant’s sense, as “a condition for the possibility of” experience and knowledge.

Regarding consciousness, Husserl first saw (along with Franz Brentano), that whenever we are conscious, we are *conscious of* something. There is always an intentional object for consciousness. He also saw that our experience of *a something* is present to us in time. Husserl noticed that there was a structure to this time-consciousness in all our perceptions. While we experience the now as an ever moving instant, “retentions” from the immediate past are part of the now, and “protentions” into the future are also part of the now. So, retentions from the past, and protentions into the future constitute the present moment.

Derrida will call these retentions “traces,” and these traces are the non-presence that always corrupts the immediacy and objectivity of the present gaze. Husserl believed there was a strong and important distinction between retentions and memory, and also between protentions and imagination. That difference made the retentions and protentions of the NOW innocuous. Derrida, however, knocks down those divides. Memory and history distort the experience of a pure present, and imagination and expectations infect even the phenomena of perception (). Since traces can never be fully manifested in the presence of the present, we lose the givenness of

things and their essences as the objective building blocks for certainty that Husserl sought, and, furthermore, language can’t communicate this purported certainty of meaning either. Not only because there is no full presence to re-present, but because meaning itself is mediated through traces and signs.

Just as the NOW is spread out into traces and expectations, the things we experience, and the signs we use to express them are also constituted by traces and expectations. The full presence of a thing and the full meaning of a sign are never fully present to us. Derrida sees that they arrive by traces and signs “differing” with each other in a past that eludes us, and their full meaning is always “deferred” into a future we can never witness. This is not just a temporal differing-deferring of signified, but a post-structuralist differing whereby signs/signifiers may be cut off from the referent/signified and signs create meaning by differing from and playing off each other, always deferring any full or true meaning.⁶

The Primacy of Text and Différance

Noticing that traces and signs create meanings—even in our thoughts—and we can see why Derrida emphasizes writing over speech. With writing it is clearer that traces and signs are involved in the production of meaning. It is easier to see that meaning arises from differences and that meaning is indefinitely deferred.

According to Derrida, the focus on speech in philosophy began when Socrates first valorized *logos*, and speech allowed us to be fooled into a metaphysics of presence. Because sound is invisible, and because we can identify our speech directly with our meaning when we speak—in the self-same moment—for us, as speakers, it appears like there are no constitutive material traces between our conscious intent and our meaning. Although a second party might have to decode our words for them to mean something to them, the self-same meaning is considered fully present to a speaker, hence Husserl emphasizes monologue as the primary form of meaningful speech or expression. According to Husserl, the signs aren’t even necessary for *us*—because we *know* what we mean. So, according to Husserl, whereas the signs “indications” for the one listening, they are “expressions” for the speaker. Hence traces are unnecessary for the constitution of the meaningfulness of signs that purportedly catch the *given* essences of the things.

Derrida plays on the German word for “moment,” which is “Augenblick,” and emphasize that while we understand our meanings in a self-same “moment,” according to Husserl, still time must pass. Even “the blink of an eye” takes time, and with that passing of time we have traces and their difference constituting meanings, even for ourselves, and there is no self-given *eîdos* of the thing for us to grasp in language, the full meaning is always postponed and subject to variation and change.

The focus on traces and writing—rather than presence and speech—brings Derrida to coin the word “différance,” which means both *to differ* and *to defer*. He loves that in French you cannot *hear* the difference between *différence* (with an “e”) and *différance* (with an “a”). It is only with the change of a trace, a letter, which is only visible in the text, that one can recognize the new meaning.

So we have 2400 years of a *phono-onto-logo-centric* metaphysics of presence exposed. For Derrida, we cannot get to truth, or an objective reality, we can only play with *différance* and *deconstruct* those oppositions that incessantly try to hold each other in a fixed and “othering” way. These oppositions are the historically constituted binaries that tend to privilege one half and denigrate or marginalize the other. Hence Derrida’s criticism of Husserl is a classic example of Derrida’s method of “deconstruction.” He shows how the privileged half of a contingent binary, “presence” in this case, relies intimately on the marginalized/denigrated half of the binary, “non-presence,” and both are historically constituted meanings that rely on each other: presence and non-presence, being and nothing, self and other, masculine and feminine.⁷

2400 years of the philosophy of presence leads to scientific reductionism in Britain and the US, and also, by the unraveling of presence, to postmodern post-structuralist irrationalism on continental Europe. These two apparently contrasting worldviews have something in common; meanings are contingent human inventions and life has no purpose. Philosophy makes meanings, but so does poetry. And poetry (as I am likely proving here with my prose) is much more enjoyable and flexible.

There is truth in Heidegger’s indictment and in Derrida’s criticisms. But *there is truth*, and that means we can access *reality*, and Polanyi (and Merleau-Ponty) can help explain how.

Knowing the NOW

Let’s go back to the critical moment in traditional philosophy where the house of cards tumbled down. Let’s look at the NOW again from a Polanyian perspective, and we see how Polanyi defuses Derrida’s well-placed bomb. What Derrida called “traces,” Polanyi calls “clues.” And what had been neglected for 2400 years in philosophy was what Polanyi called the “tacit dimension.” The constituting of the NOW, and the necessity of signs, doesn’t destroy our knowledge, it qualifies it. And with the “structure of tacit inference,” Polanyi makes manifest the role of the tacit in our knowing, resets our expectations, and tames rogue traces.

Whereas Husserl and Brentano noticed that consciousness is always *consciousness of* something, Polanyi noticed that consciousness is always *conscious from* something: subsidiary clues. When we *attend to*, we are always also *attending from*. The non-presence in the presence of the present are the tacit clues.

Polanyi sees this *from-to* structure in our perception of the present moment, in the constitution of meaningful objects, in the skillful performances of bodies, and in our understanding of meaningful speech. That this takes time, even an *augenblick*, when looked at diachronically is expected, as the clues combine in a joint comprehension, or a skill is performed with the use of muscles and nerves. And there is a vectorial quality to intentionality for Polanyi that makes the shift from focus to clues, or clues back to focus, a gestalt shift. Hence, in our phenomenological experience, the shift from meaning to its dissolution in traces seems instantaneous, and we cannot shift our attention so it is both on the focus as the joint meaning and also on the clues at the same time, hence we cannot make both the clues acting toward a focus, and that focus fully present at the same time.⁸

So it is true that the clues or traces cannot be made fully present, at least we cannot make them present in the way that they operate when they are in the process of acting *as* a clue *to* a focus. For instance, we can look at the letters “c” or “a” or “t” focally/individually (or even as an aggregate), but then we do not see their joint comprehension into the word “cat.” We can look at the words “cat” and “is” and “on” and “the” and “mat” individually as the focus of our attention, but then we do not see them as clues to the sentence “The cat is on the mat.”

For Polanyi we build on the *from-to* process in a hierarchy that crafts higher levels of integrated meaning. Sounds at the lowest level (with its rules), then words (with their rules), then sentences (with grammatical-logical rules), then style, then literary composition, etc. (TD p. 35). And along with the words-signs we also have our associations that contribute to the focal meaning, i.e., our history with particular *cats* and *mats* and the relation of *being on*. These traces of memory are also constitutive of the meaning of the words, sentences, contexts for us, though they get washed out in the logic of the relations of the signs-words in language. They are still in the tacit background, as subsidiary clues, and are required for intelligent understanding of the signs-words as they relate to each other in language, and beyond language to the things they help make manifest. As Polanyi says, all explicit knowledge (in sentences-propositions) rests on tacit knowing (and the from-to structure that provides meaning for the material signs).

Similar to Derrida, Polanyi also acknowledges that anticipatory imagination, based in tacit knowing, can lead our perceptions and the questions we might ask. This comes across in a simple and basic way in how the meaning of each word is deferred until the sentence is complete, and how the meaning of a sentence is deferred until we see it in the context of a paragraph, etc. We see the deferment of meaning at each level, because the meaning of a lower-level clue only becomes clear by its bearing on a higher-level focus. We don’t understand the sound *ka* until we hear it in “cat”; and the full meaning of “the cat is on” is deferred until we hear the word “mat”; and the meaning of those words and sentences are deferred further into a story or text that can be understood in different ways in different contexts.

The role of anticipatory imagination is also seen more generally in Polanyi’s notion of “interpretive structures” or paradigms (as Kuhn would later cast them) by which we understand what we experience—and that even, to some extent, can roll back to shape what we experience in perception (e.g. looking at a bear we may see a rock, and think it is a rock because we don’t expect a bear).⁹

So we see something right in Derrida’s criticisms, and something right about structuralist impulses of de Saussure, wherein signs (and their associations) play off each other in the tacit background as we focus on a particular word and its meaning. Also, for de Saussure, as signs link in a chain, “a word can always evoke everything that can be associated with it...a particular word is like the center of a constellation”¹⁰ (Saussure, 866)

Heidegger’s criticism of the metaphysics of presence—the valorization of the explicit—and she knew that the word “revolution” here—after 2,400 years of suppression—was not hyperbole. Tacit knowing changes the way we approach and understand nearly everything. And it, along with the idea of emergent being, is the basis for the impact Polanyi will have in the 21st century and beyond. This impact is captured in a renewal of metaphysics in how dwelling intentionally in our bodies brings us to a *reality* that is *both* formed in our experience/knowing, and given in-itself. Grene captures what is true for Polanyi as well as Merleau-Ponty when she says: “‘Being’ Merleau-Ponty wrote, is ‘what demands of us creation, in order that we have experience of it.’” (Renewal, 625).¹¹

In “Merleau-Ponty and the Renewal of Ontology” (1976), Grene talks about Merleau-Ponty’s pluralism, which, like Polanyi’s, moves against the reductive monism of scientific materialism. Rather than a reduction to meaningless matter as the basis for existence, she lauds the plurality of existence and meaning we find in emergent being.

While Grene praises and criticizes Polanyi explicitly in “Revolution,” she does so indirectly (for the most part) in “Renewal.” She sees early Merleau-Ponty as a more hierarchical thinker, like Polanyi, and sees the Merleau-Ponty of *The Visible and the Invisible* as engaged in an effort to move past the short-comings of hierarchical thinking about being, and engaged in an effort to overcome the dualisms of subject and object that have plagued philosophy in many forms—and continue to plague Polanyi, for Grene (Revolution, 169).

Grene contrasts what she calls Pluralism A, which moves “up a ladder” to “more highly organized beings” (608) and Pluralism B, which proliferates in all directions with “explosive radiations” (608). She admits that there is “some hierarchical organization, some ‘level of reality’” (608), but whereas A emphasizes progress, B emphasizes change, and Grene comes down on the side of change. She also characterizes Pluralism A with a “centripetal” metaphor, and Pluralism B with a “centrifugal” metaphor (609). This brings us back to Hegel, Heidegger, and God for some background context.

Bubbling-up Being Resists Totalizing Tendencies

Hegel’s logic proceeded from Being—its negation into Nothing, and its synthesis in Becoming—all the way up a dialectical chain that ended in Absolute Spirit. Even starting with “sense certainty” as empiricists do, Hegel (like Kant) recognized that raw perception is blind without concepts, and so it is not certain at all. It is only after we rise to concepts and judgments that we can have certainty about sensations, and then they are no longer raw sensations. Hegel follows the logic of negation, and the negation of the negation into a synthesis, up along a charted path to a teleological end. We come to totality in the concrete universal of *Geist*, and in its highest and absolute self-conscious form, Absolute Spirit, all partial truths become whole. With Hegel, then, Heidegger sees a totalizing drive to a full understanding of being, and imagined progress towards a resting point in something like God or a God’s eye perspective. Heidegger criticized this totalizing tendency of the metaphysics of presence as onto-theological (or, as Derrida might say, *theo-onto-logocentric*), and Merleau-Ponty is also reluctant to postulate a teleological trajectory

to the manifestations of Being. Being bubbles up effervescently in all directions and is not unified towards a highest being or one direction for progress and understanding.

Greene clearly saw a centripetal directedness towards a center or hierarchic peak in Polanyi, even if it is not so grand and certain as Hegel's. Pluralism A implies “a culmination in man, or in God, and to that extent a focal point, a center of the whole” (609). Greene grew to prefer later Merleau-Ponty's Pluralism B, and his aim to catch “wild being” (618) and unconfined to a telos. But to see wild being is not just to impress *our concepts* on Being, there is a *givenness* to this being, that is becomes apparent when we apply the phenomenological method. As Merleau-Ponty says, Husserl's phenomenology “puts essences back into existence” (M-P, vii)¹² and “Husserl's essences are destined to bring back all the living relationships of experience, as the fisherman's net draws up from the depths of the ocean quivering fish and seaweed” (M-P, xv).¹³

NOW Again

To better understand this vertical bubbling up of being, Greene points to Merleau-Ponty's chapter on “Temporality” in the *Phenomenology of Perception*, where he will “stretch out the Cartesian instant” into a “thick, spanned present—or presence—of perception, in which I see what is not me, the world and others...” (Renewal, 613). This is the NOW, again, in which we experience things and their essences and each other. Greene goes on to see the transcendental import of this moment: “...and yet, in the more-than-momentary moment of radical reflection, [I] see myself, too, in the only way I can ‘see’ myself. That is: not in a flash of self-referential self-certainty [Descartes], but as [Merleau-Ponty] was to call it later, in the flesh [*la chair*]. Such a *cogito* is ordered, and in more than one dimension. It displays a complex tension between the many-leveled worlds of meaning in which I come to know myself” (613).

The NOW is “stretched out” and we see in it the structure of the emergence of being, a wild, centrifugal being that cannot be tamed into a hierarchy or purpose. This moves against a reduction to matter (or traces) for Greene, as it arbitrates between rationalist and sensationalist approaches to knowledge: “Seeing is not intellection...neither is it a dumb show” (618). This stretching out is also the basis of Pluralism (B)—a modest emergentism that acknowledges a variety of types of things and embraces the fecundity of life in changes we might chart as devolution as accurately as evolution (Renewal, 608). She says, “Evolutionary theory provides, in my view, a poor crutch for a renewal of ontology” and suggests instead Merleau-Ponty's “phenomenal topology” (614-615).

So Greene sees the “upsurge” (617) or bubbling up of things in existence in the NOW, and recognizes that this is structured, but it is not simply structured by a “transcendental ego,” as Husserl supposed (moving him closer to a Transcendental Idealist view, to Merleau-Ponty's dismay), but by habituation and structures of the body, as Merleau-Ponty supposed, that is, in the flesh, which defies the subject-object distinction by being the place, always-already in the world, where we dwell, experience, and think.

Here, for Polanyi, is where the structure of tacit knowing is not just about understanding conceptually, but about perception and skill. Polanyi recognized the tacit knowing structure in

the body-knowing that M-P emphasized, where being bubbles up for us from the clues or traces we'd call sensations, that don't just appear for us fully formed at our extremities.

Polanyi and Merleau-Ponty both understand how our minds and bodies extend out into the world, and they use similar examples. For instance, how a blind person might use a probe or stick to see the dimensions of a room. Once they develop the skill, they do not feel the stick in the hand, but they feel what the tip of the stick is touching. The feeling of the stick is something of which they are only tacitly aware, as a clue to the explicit focal awareness beyond it. The stick becomes an extension of the body, like the hand when it touches something, we *dwell in* the stick and it becomes a subsidiary part, like the bones, muscles, tendons and neurons that allow us to experience a place in the world and the others in it; tacit, subsidiary clues, riding on subsidiary, subordinate structures, allow us to experience focal meaning, they allow us to perform skills, and allow us to understand.¹⁴

Robust Realism Resists Reduction and Reaffirms Rightness

Greene does not explicitly say that Polanyi is committed to Pluralism A and its centripetal directedness, but we do see this tendency in his building from physics and chemistry, to biology, to psychology, to the social, to the personal. In the last part of *Personal Knowledge* (part IV), it does indeed look like Polanyi sees a predestined apex to life in humanity, in a process he calls anthropogenesis. We also see this centripetal tendency in the ability to discover ever-better, rather than merely different, interpretive structures by which to understand the world.

But the tendency can be forgiven, I think, given the different tasks that Polanyi and Merleau-Ponty were engaged in (the different approaches, as Greene recognizes). Merleau-Ponty was engaged in phenomenological *description*, Polanyi was looking for more in terms of *explanation*, and so there is more of an effort to chart dependencies, with subsidiary and subordinate, conditions, and to recognize systems in even more complex systems. The generalized subordinate-ordinate levels and subsidiary-focal integrations push one to hierarchize (e.g., and put mind “above” body, instead of to see them as body-mind, as Merleau-Ponty would. So, Polanyi sees development, but also continuity and similarity in protozoa, frogs, dogs, apes, and humans. But if we look more closely, we will also see, as Greene notes, how “‘...orders’ that appear to provide an ascending hierarchy are in fact all involved with one another” (611).

Both Polanyi and Merleau-Ponty have robust plural realisms that fulfill the *desiderata* for a renewal of ontology, according to Greene, since the renewal not only espouse a pluralism against a reductive material monism, but also must push against the phenomenalisms and nominalisms that see reality and its types/*eîdos* as psychological constructs (Renewal, 606-607). As Merleau-Ponty says, “The separated essences are those of language. It is the office of language to cause essences to exist in a state of separation which is in fact merely apparent, since through language they still rest upon the ante-predicative life of consciousness” (Merleau-Ponty, 1967, xv). Polanyi and Merleau-Ponty point us to a robust realism that is participatory or enactive, as we play a creative role in the discovery of co-created being.¹⁵

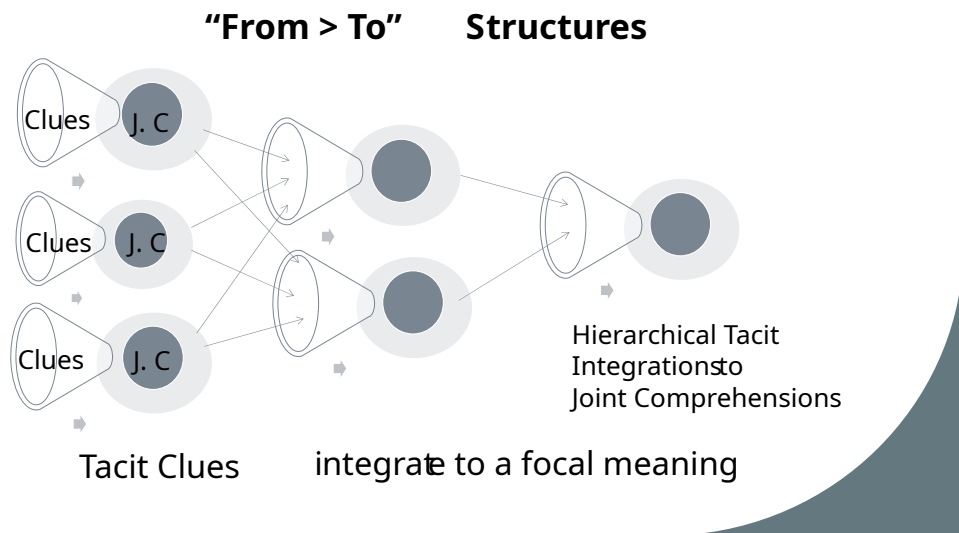
Both Polanyi and Merleau-Ponty show a spreading out of tacit traces and bodily flesh into the world of experience. This awareness defies a naïve conception of presence, but also points to a

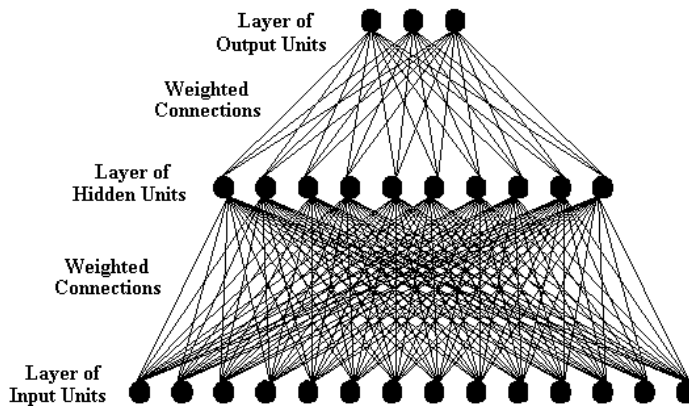
givenness in presence as well—“a thick spanned...presence.” They both show the course correction philosophy needs after 2400 years of beguilement, but do not steer to irrationalism, subjectivism, or relativism. They steer toward a co-cocreated reality in which we find meanings that are really there for us to see—not given objectively but given “anonymously,” as Grene puts it (Renewal, 614)—since being gives to me something similar to what it gives you, in spite of our different bodies and histories. As she says, “The spectacle is there for all to see” (614). And being is known “personally” as Polanyi puts it, since reality is affirmed with universal intent in the context of one’s commitments.

Similarities between Tacit Knowing and Neural Networks

To see the connection between the revolutions of tacit knowing and that of connectionist computing, I will summarize a few more points from my “Rise” paper. Then we’ll clearly see how fleshing out the NOW in Grene’s “Renewal” adds meat to the Polanyian bones to help better show the limitations of AI.

We saw with Polanyi that the emergence of meaning comes from a joint comprehension; clues come together and form a new meaning (letters to words), and these new meanings can come together at a different level of system (each of which have their own rules) to form an even richer meaning (words to sentences, etc.) The structure for tacit knowing that Polanyi delineated (clues to a joint comprehension) is similar to the connectionist structure (inputs to nodes) used in AI chatbots that display human-like intelligence.

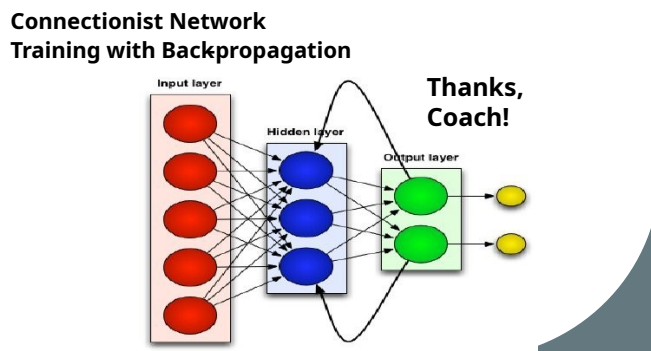




We see that there is a lot of parallel processing going on here as nodes become inputs and different clues gather into different meanings further downstream. In “Rise,” I point out how these neural nets model our knowing and the way meaning emerges, but they also model *an irreducibility* that Polanyi finds in tacit knowing.

There are “hidden layers” that cannot be untangled to become fully explicit, and there is what Paul Smolensky calls a “dimensional shift” between the signs and traces that are inputs and their joint combination into concepts or meanings. Similarly, Polanyi sees a “logical gap” between the clues and their collective meaning in a joint comprehension. Smolensky is a key developer of connectionist systems and one who sees “rules and symbols” approach as something that *emerges* from a more basic connectionist approach¹⁶—this also is similar to Polanyi who founds all propositional knowledge (like the grammatical rules of the level of sentences) on tacit knowing (of the sounds, and then the signs).

Connectionist systems are trained by feeding more “experience” or data that provide more weight to desired outcomes. So, connectionist networks are not only mimicking what we do with language when we say something intelligent, they also mimic the way we perceived patterns and the way we develop skills. We train the body in the same way as we build from traces to meanings when we practice movements and develop skills, where we add weight to the probability of an outcome by repetition of input, and the desired the output becomes more “automatic” by becoming more probable.



In “Rise,” however, I also show how this sort of operant training of bodies is not simply a matter of determinate causality that removes the possibility of freedom. We have freedom within the bounds of a context of development. Even bodies¹⁷ show some creativity and freedom, with an “intentional” trajectory that seeks to overcome problems. With development comes opportunity (living things can move and eat) and risk (living things can starve and die). Some earlier, less-developed living systems operate with a more confined proto-freedom (protozoa have fewer, and more banal, sorts of choices) and some later develop quite a bit of elbow room for varied choices and directed “higher-level” agency (in mind-body “dual control” systems like us).

AI machines model this intentionality and self-training, in the mind or the body, as we now have systems that can “back-propagate” to error-correct and “learn” different ways to overcome problems in advancing goals that have been set.

Dwelling In with Intention vs. Computing

This is the point at which we can ask if machines can “think” or “know” or “learn” or “understand” and “want” one result rather than another. It has become easier to use these human terms about machines, as the way they mimic us gets better, but are they doing what we do, or just modeling it, and if they model it so well, then what sense does it make to deny them consciousness and agency, too?

For Derrida, the subject does not originate meaning, the subject itself is constituted in the play of *différance*. If all we have is text and *différance*, if we lose the subject in the play of signs, if signs *speak us* and we do not also speak with them, then by the light of Derrida’s analysis, we would have to allow that an AI does, or soon will, think.¹⁸ With Derrida, we lose the depth of embodiment that is needed for an experience of the depth of meaning. Similarly with AI, the processors do not have the bodily experience required for the sort of understanding that we can share. They do not have the affordances to experience the meaning of the traces, but they have and manipulate the signs that can mean something to us.

If we retain some conception of a conscious subject that does not get fully absorbed into a post-structuralist philosophy of language, where the subject (like the author, like God), is dead relative to language (in texts, and Modern thought¹⁹)—if there is an embodied *sense-reader* as well as the sign-traces there to be experienced and read, who can enter into relationship with the world through a body—then we can say that there is something missing in these smart computers; something emergent in biological forms that is not present in artifices. Something that is not a thing, but is what Descartes and Grene called the *cogito*, the *I think*— or what Polanyi called an *active center*. An emergent being that would also *dwell in* the physiological, perceptual and cognitive structures that allow for experience and knowledge.

But there’s that “allows for” again, which seems to separate us from our body-knowing and pressure us towards a dualism. The relation of body and mind has to be messier than that, which leads Grene to Merleau-Ponty’s notions of the intertwining (*chiasma*) of subject and object, and a folding back on itself of the mind in the mind-body,²⁰ over Polanyi’s apparent return to a form of dualism.

Was Polanyi Too Dual for Renewal?

While Grene praises Polanyi for setting the ground for a revolution in philosophy, she also becomes disillusioned with Polanyi, believing that he neglects his own insights and their implications. She cites how Polanyi recognizing that “the mind is the meaning of the body” but she believes that he backslides towards a Cartesian dualism, whereas Merleau-Ponty gets it right by speaking of thinking “flesh” and body-mind.

But does Polanyi slip back to Cartesian dualism? Grene sees hints of this when Polanyi insists, in discussion with Hubert Dreyfus, that we are always tacitly aware of clues — rejecting the notion that tacit clues can be unconscious (Revolution, 170). But is to say that we are not subsidiarily aware of our neurons a repudiation of the implications of tacit knowing, as it is entwined with the body? Or is it distinguishing the tacit knowing of the conscious mind, as a sense-reader, from the tacit knowing via the body in *its* perception and experience of the world. Polanyi need not reject the idea that our bodies are to some extent knowing beings themselves, through perception, through habituation, which can be to some extent isolated as subordinate-subsidary to a mind that can exercise some measure of awareness and control in an emergent “dual control” system.

To see body and mind as two different independent systems, one entirely subordinate to the other, would indeed be an abstraction that misses the messy intertwining and mutual dependencies of both. Just as to claim that evolution proceeds lock step towards more developed beings with more possibilities and more choice, overlooks “devolutions,” and the messy upsurge in all directions bubbling up being. Trajectories toward a telos, come after, with interpretive structures, much as the winners of wars get to write their histories.

But while we can acknowledge the intertwining of body, mind and world, and we can acknowledge the multivalent fecundity of being, there is still sense to distinguishing mind as having some independence from the body, and its structures and habits, and so there is still sense to discussing human consciousness as *dwelling in* a body to experience and understand a plurality of beings the world.²¹

We are our bodies, in that mind-body together are the system that has bubbled up—on bubbles of bubbles of being that have renewed, developed, and sustained in evolutionary history. But in the special sense in which the flesh provides *clues-subsidiaries* or is the *subordinate structure* that we *attend from* or *ride on* to experience meaning, there is a mental level that has emerged that is more than the *from* or the *to* that can be mimicked by connectionist “neural network” computation or the *différance* of traces and signs.

Above clues and their joint focus, stands a sense-reader, a tacit knower who dwells in a body and who holds both tacit awareness of clues-traces and explicit awareness of their integration into meaning. This is the work of an emergent being, who, through evolution, has acquired the subsidiary and subordinate structures to mature into a consciousness that experiences, stores

traces, and navigates meaningfully. But if any living thing with nervous systems has this indwelling consciousness, this indwelling is common to most animals.

Does Claude Really Know Me? Can “He”?

For us, there is “something it is like” to be an experiencer and knower, and it requires the sort of body that we have, while—at least for now—there is “nothing it is like” to be a Claude chatbot. Claude does not have the animal body and the lived experiences required to develop our kind of knowledge and freedom—at least not yet, it only has the signs or traces and their play in computer processors. Claude deals with abstract representation rather than a lived presence; it does not have the tacit body-knowing of a human, or even an animal, consciousness.

The emergentist notion of multiple realizability, however, allows that systems with different origins and of different materials can come to share certain emergent features. Consciousness (eventually) could be one of them. But, for now, a machine doesn’t have the right emergent structure and experience that we recognize in humans and animals. To actually understand us, rather than mimic us, Claude would need the right kind of affordance to engage with the world and with us in a meaningful way that is similar to us. He would have to share our form of being in the world.

Wittgenstein remarked, “If a lion could talk, we could not understand him” (*PI*, p. 223) because we do not share “the form of life” of a lion; how much less could Claude understand us, even if it could spit back (as if from Searle’s “Chinese Room”) sentences and pictures that we can understand. We feel passions in the body, and passions build to meanings in thoughts. Can Claude? Or can “he” only mimic representations in the order that we are likely to give to them when we do speak our souls?²²

Conclusion: *Viva la Révolution... et le Renouveau!*

Greene came to believe that Polanyi did not fully understand the implications of his approach to tacit knowing (*Revolution* 1977) and that he overestimated the teleological directedness of his emergentism (*Renewal*, 1976).²³ Polanyi might then have too strongly segregate the developed structures we think upon/with and the from-to experience of the thoughts that we think—even while recognizing the necessity of (distinct and intertwining) subsidiaries for both.

Polanyi’s relevance for the 21st century includes overturning of 2400 years of philosophy dominated by explicit knowledge and the fully present experience. It includes an approach to emergentism that overcomes Cartesian dualism. Tacit knowing and emergent being together change the way we understand virtually everything, from science to spirituality. They also imply an enactive or participatory realism that recognizes the reality of *eîdos* and a plurality of beings in the world, and this, I believe, is a promising approach for the renewal of metaphysics.

Endnotes

¹ Charles Lowney, “The Rise of the Machine: Body-Knowing, Neural Nets, and Emergent Freedom” Carol Vernallis, Holly Rogers, Selmin Kara & Jonathan Leal (eds), *Cybermedia: Explorations in Science, Sound, and Vision* (New York: Bloomsbury Publishing Inc., 2022), 97-127.

² Marjorie Grene, “Tacit Knowledge: Grounds for a Revolution in Philosophy” in *Journal of the British Society for Phenomenology*, 8:3 (October, 1977), 164-171 (henceforth “Revolution”); and “Merleau-Ponty and the Renewal of Ontology” *The Review of Metaphysics*, 29:4 (June, 1976), 605-625 (henceforth, “Renewal”).

³ These are Heidegger’s questions in his introduction in *Being and Time*. Although, rather than “What is Being?” as I phrased it Heidegger first asks, “What is ‘Being’?” That might be a use-mention error by Heidegger, which might actually make the question make sense for a logicist, since putting a word in quotes typically means we are talking about the word itself (mentioned) rather than a purported referent.

⁴ As Heidegger notes, “To the things themselves!” was Husserl’s rallying cry.

⁵ Derrida moves towards a vision of philosophy in which it is harmful, and no more insightful, than poetry, and so it is bad poetry. Heidegger, similarly, equates philosophy and poetry, but sees avenues for *Aletheia* and truth in poetry, so it is not quite the disparagement it comes to be for Derrida.

⁶ This structuralism points to the disconnect between embodied experience of things, and the language-signs we use to mean those things. But it also points to the intractability of the difference between sign and signified in our being in the world and language.

⁷ Hence, we build to the *phallo-phono-onto-logo*-centric metaphysics of presence (and we can add “*theo*” as a prefix, as well, when we get to Heidegger’s criticisms of the totalizing discourses that Merleau-Ponty and Grene dislike.

⁸ This foreshadows the “hand trick” of touching one’s hand while it is touching something else, devised by Merleau-Ponty in order to catch oneself simultaneously as subject and object. But Grene (unsurprisingly) “cannot make it work” (Renewal, 619). Unsurprisingly, I would say, because there is no way to get under or behind this intentional structure to something deeper.

⁹ We also see this affecting perception in the “immediate” experience of optical illusions.

¹⁰ Ferdinand de Saussure’s “Course in General Linguistics” selection in Vincent B. Leitch, ed., *Norton Anthology of Theory and Criticism*, Second Edition (New York: W.W. Norton & Company, 2001), 850-867. We also see in the diagram a tacit integration into a joint meaning and a similarity to connectionist architectures.

¹¹ Grene quotes Merleau-Ponty’s *Visible and Invisible* (Paris: Gallimard, 1964), p.251.

¹² Merleau-Ponty, *Phenomenology of Perception* (New York: Routledge & Kegan Paul, 1967).

¹³ Note that this approach to essences, like Polanyi’s approach to universals, sees ideas or concepts as *that by which* we understand rather than *that which* we understand (as Aquinas would put it). This overcomes a separation of mind from world by seeing concepts as a tool for accessing reality rather than a distancing or distorting mirror of our own casting. Experience builds with the body’s perceptual structures and comes to concepts that tacitly allow us to reach into being and experience it as it flashes and quivers; we come to see we are not irrevocably separated from it by representations as the *that which* we can know.

¹⁴ But do they *allow* us—or *are* they us? This question catches a distinction between Merleau-Ponty and Polanyi that will be discussed shortly.

¹⁵ See my paper, “Robust Moral Realism: Pluralist or Emergent” *Tradition and Discovery* 43:3 (2017) 39-53, for more on enactive realism and the disadvantages and advantages of an emergentist hierarchy.

¹⁶ See Paul Smolensky, “On the Proper Treatment of Connectionism,” in MacDonald, C. & MacDonald, G., *Connectionism: Debates on Psychological Explanation*, vol 2. (Oxford: Blackwell, 1995), 28-89.

¹⁷ “Bodies” here indicating human bodies, as abstracted from our mind/higher mental functions, or the bodies of animals with minimal mental activity—e.g., those who cannot form concepts.

¹⁸ This dissolution of subject seems the danger in taking Grene too literally when she says, “Language comes to possess us as it explodes out of silence” (Renewal, 621) but she recognizes she is being swept up in rhetoric at this point (622).

¹⁹ See Foucault’s “What is an Author” (1969) where he reflects on Roland Barthes “Death of the Author” (1967) and talks about how the Author—and the Subject—is no longer an agent but a function in a system of institutions and power relations.

²⁰ Grene praises Merleau-Ponty’s effort to get to an ante-predicative experience or understanding of being and mind. “Merleau-Ponty’s [questioning] is *preconceptual*: that is how it is *radical*: at the *root* of awareness, of the return of awareness from things to its incarnate place among them—and *rooted* in incarnation, in the bodily presence of things to me and of myself to things. ‘To grasp,’ Merleau-Ponty writes in the working notes, “that leaving oneself is at the same time returning to oneself: grasp this intertwining (*chiasma*), this return, that’s where the mind is [*Visible and Invisible*, 252 Grene’s owntranslation]” (Renewal, 617).

²¹ Pope Leo the IV in his 2026 encyclical “Magnifica Humanitas” warns against mistaking AI processing for human intelligence. He reminds us that we should “recognize the human heart as the place where God desires to dwell.” Is this another “level up” (God) dwelling in another “level down” (the human heart)? Like us in our body, or society in institutions? What can we make of an entwinement there?

²² I asked Claude: Would Michael Polanyi believe that machines could be as intelligent and free as human beings? Claude gave me an extremely intelligent and well-crafted answer that ended,

In short, Polanyi would likely say that machines can be powerful tools that extend human intelligence, but they cannot *be* intelligent or free in the full sense — because genuine intelligence requires tacit knowledge, personal commitment, and responsible self-determination, none of which are formalizable or programmable. Intelligence, for Polanyi, is irreducibly personal, and personhood is not a computational achievement.

An excellent answer, but it is not an answer that Claude could experience as meaningful. It is not tacitly dwelling in experience to understand the meaning of the words through tacit integration and sense-reading. It has no interests and intentions, and no personal commitments that would give it reason to choose one path over another. Claude also did not recognize the new developments in computing that might make AI more than a traditionally conceived formal system operating on explicit rules. Hence it is also clear that Claude currently lacks the self-knowledge to distinguish its own connectionist computing from traditional computer processing.

²³ I can see how Polanyi’s worries about the reduction of mind to body can lead him to emphasize a shift in levels that segregates somewhat body-knowing from human perception and from mind-knowing. But I also see how knowing for Polanyi is entangled with being, and we know through emergent structures. Grene knew Polanyi better than I, and she points to conversation between Polanyi and others, rather than his writings, as the source of her disillusionment. If she is right, the breakthroughs in knowing and being are in Polanyi (as Grene recognizes) but the implications may—though Polanyian—go beyond Polanyi.