Consciousness and the Natural Universe

Robert Hanna



"The Sower," by Vincent Van Gogh (1888-1889)

As your eyes scanned down from the title of this essay to this opening sentence, you consciously encountered an image of Van Gogh's famous painting, *The Sower*. You might also have consciously imagined yourself projected into the scene depicted in the painting. Last night, I consciously dreamed about the nature and irreducibility of consciousness. So consciousness is manifestly real, and you, I, and the person living next door all have a capacity for consciousness. But what is consciousness?

Let's start with something very simple. You, the reader of this very sentence, are consciously reading this very sentence from left to right here and now.

Dear Reader, please now read the immediately previous sentence again, this time (even) more slowly and carefully. Obviously, insofar as you read it, it's true. Moreover, your belief in its truth is sufficiently justified by the intrinsically compelling evidence yielded by the phenomenology-i.e., the subjectively experienced intentional performance, intentional content, and specific qualitative characters-of your conscious act or process of reading it. The sentence cannot read itself, because it's not conscious; and nobody else but you consciously read that very sentence in the same way, at the same time, and in the same place, that you did. On the contrary to both of those, because the sentence is in English you consciously read it from left to right, and you also consciously read it right here and now, just as the sentence says. Even if nothing *else* in the world had existed but that sentence and your consciously reading it from left to right here and now; even if you had consciously read that sentence in a *dream*; or even if an evil scientist had somehow produced in you a hallucination of your consciously reading that sentence: it would still be true, and your belief in its truth would still be sufficiently justified by the intrinsically compelling evidence yielded by the phenomenology of your conscious act or process of reading it. There are no epistemic gaps between you, the reader of the first sentence of this essay, and your consciously reading that very sentence. So you have authentic, skepticism-proof, empirical or a posteriori knowledge of your own consciousness (see also Hanna, 2015: esp. section 1.7). Or in René Descartes's technical terminology, you have clear, distinct, and certain intuitive knowledge of your own consciousness (Descartes, 1984-1985b, 1984-1985c, 1984-1985d, 1984-1985e).

Granting that, then how does consciousness relate to the natural universe, including our own bodies? This, of course, is the classical mind-body problem. In Embodied Minds in Action (Hanna and Maiese, 2009), Michelle Maiese and I claim that the mental-physical relation in minded living organisms like us is nothing more and nothing less than (i) a synthetic a priori two-way necessary complementarity relation, and also (ii) a neo-Aristotelian hylomorphic relation, that is, a mental-to-physical and also physicalto-mental entangled necessary equivalence of "fused" inherently activating irreducible formal or morphetic mental properties on the one hand, and complex non-equilibrium thermodynamic material or hyletic biological physical properties on the other, such that, (iii) as minded animals, i.e., as conscious living organismic animal bodies, we're an indissoluble and physically irreducible form-matter composite, by virtue of which we're always "minding our bodies" (Hanna, 2011), that's (iv) inherently poised for causally efficacious intentional action, spontaneously initiated and creatively guided by our synchronous acts of desire-based willing (Hanna, 2020). In short, our minds are physically irreducible forms of animal life and we're essentially embodied minds in action; and this is what Maiese and I call the essential embodiment theory of the mind-body relation and mental causation. More explicitly, the essential embodiment theory says that the physically irreducible conscious, intentional minds of minded animals are necessarily

and completely embodied in those animals, and, more specifically, and that the physically irreducible conscious, intentional mind of a minded animal is the global dynamic immanent structure of the living organismic body of that very animal, a structure that synchronously activates and guides that animal's causally efficacious biological powers—or as Aristotle puts it in his own terminology: "the soul (*anima*) is the first actuality of a natural body that has life potentially" (Aristotle, 1968: II.i.412a22). Hence the essential embodiment theory is committed to an updated version of *neo-Aristotelian hylomorphism* about the mind-body relation.

According to the essential embodiment theory, consciousness is *subjective experience*, which is to say that it inherently involves a self that's egocentrically-centered in orientable space and unidirectional time (= subjectivity), and also that this self enacts or engages in mental acts, states, or processes of various kinds (= experience), and furthermore consciousness has two basic modes: (i) *pre-reflective or non-self-conscious consciousness*, which, in being naturally directed towards cognitive or intentional targets other than itself, is immanently reflexive, or aware of itself egocentrically and subjectively, without implicitly or explicitly forming judgments or propositional thoughts about itself, and (ii) *reflective consciousness, or self-consciousness*, which, in being naturally directed towards, or about, itself *as* a cognitive or intentional target, is aware of itself allocentrically and objectively, by implicitly or explicitly forming judgments or propositional thoughts about itself. More simply put, pre-reflective or non-self-consciousness consciousness is just being a conscious mind that's directed towards other animals or things; whereas reflective or self-conscious consciousness is thinking about itself *as* a conscious solution that's directed towards other animals or things; whereas reflective or self-conscious consciousness is thinking about itself *as* a conscious solution that's *also* directed towards other animals or things.

But what about the relation between consciousness and rest of the natural universe beyond our bodies? In my opinion, in order to understand the nature of conscious mind in general and rational human conscious mind in particular, we need radically to rethink what Alfred North Whitehead so aptly called our *concept of nature* itself (Whitehead, 1920/1971), radically re-conceiving nature as inherently processual and purposive, running from The Big Bang Singularity forward, via temporally asymmetric or unidirectional energy flows, to organismic life, and then on to conscious mind in general and to rational human conscious mind in particular, which in turn entails including radically re-conceiving the mind-body relation, free agency, and emergence. In a nutshell, my thesis is that there's a single, unbroken metaphysical continuity between The Big Bang Singularity, temporally asymmetric/unidirectional energy flows, organismic life, conscious mind, and free agency (Hanna, 2024: esp. chs. 1 and 16).

Now, given (i) that we actually exist, (ii) that we also know *a priori* that our actual existence logically follows from the fact of our conscious and self-conscious thinking (the

Cartesian *Cogito*: necessarily, if I'm thinking, then I actually exist), (iii) that the natural universe actually exists, and (iv) that the natural universe actually existed long before rational "human, all-too-human" minded animals began to exist as a biological species, then since actuality entails possibility, it follows that we cannot be either logically, metaphysically, or nomologically impossible. Or otherwise and now positively put, necessarily, given that we actually exist and also know a priori that our actual existence follows from the fact of our conscious and self-conscious thinking, then the natural universe, from The Big Bang forward, structurally contains our real possibility as rational "human, all-too-human" minded animals. And this fact about the natural universe remains true even though consciousness does not exist always or everywhere; indeed, this fact about the natural universe remains true even though consciousness did not necessarily have to exist at all, far less necessarily have to exist here and now. In short, it is a profound mistake to think that the round peg of consciousness has to be somehow crammed into the square hole of the natural universe. On the contrary, without the real possibility of consciousness, there would be no such thing as as natural universe. Panpsychism (i.e., the thesis that everything in the natural universe is actually conscious or proto-conscious) is false, but necessarily, the natural universe is *potentially* conscious whenever and wherever organismic life reaches a certain level of thermodynamic complexity; in this sense, necessarily, the natural universe is the home and matrix of consciousness. Let's call this thesis *consciousness-oriented cosmology*.

Correspondingly, here is what the contemporary cosmologist, Thomas Hertog, building on the work of the later Stephen Hawking, calls *top-down cosmology*:

In this book I have argued that a genuine quantum outlook on the universe counters the relentless alienating forces of modern science and lets one build cosmology anew from an interior viewpoint-the essence of Hawking's final theory. In a quantum universe, a tangible past and future emerge out of a haze of possibilities by means of a continual process of questioning and observing. This observership, the interactive process at the heart of quantum theory that transforms what might be into what does happen, constantly draws the universe more firmly into existence. Observers-in this quantum senseacquire a sort of creative role in cosmic affairs that imbues cosmology with a delicate subjective touch. Observership also introduces a subtle backward-in-time element into cosmological theory, for it is as if the act of observation today retroactively fixes the outcome of the big bang "back then." This is why Stephen referred to his final theory as top-down cosmology; we read the fundamentals of the history of the universe backward-from the top down.... Top-down cosmology turns the riddle of the universe's apparent design in a sense upside down. It embodies the view that down at the quantum level, the universe bioengineers its own biofriendliness. Life and the universe are in some way a mutual fit, according to the theory, because, in a deeper sense, they come into existence together. In effect, I venture to claim that this view captures the true spirit of the

Copernican Revolution. When Copernicus put the sun at the center, he realized all too well that from then on one would need to take the motion of the Earth around the sun into account in order to interpret astronomical observations correctly. The Copernican Revolution did not pretend that our position in the universe is irrelevant, only that it isn't privileged. Five centuries on, top-down cosmology returns to these roots. (Hertog, 2023: pp. 254-255)

In my opinion, the essential embodiment theory of the mind-body relation and mental causation, together with consciousness-oriented cosmology, jointly provide a rich metaphysical framework for Hawking's profound remark, as recalled by Hertog:

With [*a*] *top-down* [*approach*] *we put humankind back in the center* [*of cosmological theory*], he said. *Interestingly, this is what gives us control*. (Hawking, as quoted in Hertog, 2023: p. 207, italics in the original)

This remark captures Nicolaus Copernicus's original Copernican Revolution in 16th century cosmology, as refracted through Immanuel Kant's 18th century Copernican Revolution in metaphysics in the *Critique of Pure Reason* (Kant, 1781/1787), as refracted yet again through Hawking's and Hertog's 21st century top-down cosmology, finally coming home to where it always truly belonged (Hanna, 2024: ch. 7).

REFERENCES

(Aristotle, 1968). Aristotle. *Aristotle's De Anima: Books I and II*. Trans. D.W. Hamlyn. Oxford: Clarendon/Oxford Univ. Press.

(Cottingham, 1992). Cottingham, J. (ed) *The Cambridge Companion to Descartes*. Cambridge: Cambridge Univ. Press.

(Descartes, 1984-1985a). Descartes, R. *The Philosophical Writings of Descartes*. Trans. J. Cottingham, R, Stoothoff, and D. Murdoch. 2 vols., Cambridge: Cambridge Univ. Press.

(Descartes, 1984-1985b). Descartes, R. *Rules for the Direction of the Mind*. In (Descartes, 1984-198a: vol. I, pp. 9-78, AT X: 359-472 [1628]).

(Descartes, 1984-1985c). Descartes, R. *Discourse on the Method*. In (Descartes, 1984-1985a: vol. I, pp. 111-151, AT VI: 1-78 [1637]).

(Descartes, 1984-1985d). Descartes, R. *Meditations on First Philosophy*. In (Descartes, 1984-1985a: vol. II, pp. 3-62, AT VII: 1-90 [1641]).

(Descartes, 1984-1985e). Descartes, R. *Principles of Philosophy*. In (Descartes, 1984-1985a: vol. I, pp. 179-291, AT VIIIA: 1-329 [1644]).

(Hanna, 2011). Hanna, R. "Minding the Body." *Philosophical Topics* 39: 15-40. Available online in preview at URL = <<u>https://www.academia.edu/4458670/Minding_the_Body</u>>.

(Hanna, 2015). Hanna, R. *Cognition, Content, and the A Priori: A Study in the Philosophy of Mind and Knowledge*. THE RATIONAL HUMAN CONDITION, Vol. 5. Oxford: Oxford Univ. Press. Also available online in preview at URL =

<<u>https://www.academia.edu/35801833/The_Rational_Human_Condition_5_Cognition</u> <u>Content_and_the_A_Priori_A_Study_in_the_Philosophy_of_Mind_and_Knowledge_O</u> <u>UP_2015_</u>>.

(Hanna, 2020). Hanna, R. "Will-Power: Essentially Embodied Agentive Phenomenology, By Way of O'Shaughnessy." In C. Erhard and T. Keiling (eds.), *Routledge Handbook: The Phenomenology of Agency*. London: Routledge. Pp. 312-333. Available online in preview at URL = <<u>https://www.academia.edu/36883518/Will-</u> <u>Power Essentially Embodied Agentive Phenomenology By Way of OShaughnessy</u>>. (Hanna, 2024). Hanna, R. *Science for Humans: Mind, Life, The Formal-&-Natural Sciences, and A New Concept of Nature*. Berlin: Springer Nature. Available online in preview at URL =

<<u>https://www.academia.edu/118055113/Science for Humans Mind Life The Formal a</u> <u>nd Natural Sciences and A New Concept of Nature Springer Nature 2024</u> >.

(Hanna and Maiese, 2009). Hanna, R. and Maiese, M., *Embodied Minds in Action*. Oxford: Oxford Univ. Press. Available online in preview at URL = <<u>https://www.academia.edu/21620839/Embodied_Minds_in_Action</u>>.

(Hertog, 2023). Hertog, T. *On the Origin of Time: Stephen Hawking's Final Theory*. New York: Bantam.

(Kant, 1781/1787). Kant, I. *Critique of Pure Reason*. Trans. P. Guyer and A. Wood. Cambridge: Cambridge Univ. Press. ([1781] Ak 4: 1-251; [1787] Ak 3)

(Whitehead, 1920/1971). Whitehead, A.N. *The Concept of Nature*. Cambridge: Cambridge Univ. Press.