

On The Nature of Things

...As They Seem

A Didactic Poem in Stichic Form
Composed of Joined Elegiac Quatrains

And Inspired by the Great First-Century-BC Roman
Didactic Poem of Epicureanism, *De rerum natura*
("On the Nature of Things," in 7,400 Dactylic Hexameters
Divided into Six Untitled Books [and Probably Unfinished])
by Titus Lucretius Carus (c. 99-c. 55 BCE)

Though More Fundamentally Motivated by the
Counter-Intuitive Nature of Our World
Revealed to Us by Embodied Cognitive Science

Desire drives the way our world's made
By us from out those crucial bits our nerves
Evolved to read—a narrative, portrayed
Electrochemically in flesh, that serves
To steer us through the blur of useless facts
In which priorities of sustenance
And safety are obscured, lest they detract
Our chance to pass on genes toward subsequence.
The antecedent of this mortal force,
Before the workings of biology
Emerged from properties at physics' source,
Is, basically, *attraction*—gravity,
Electromagnetism, and so on—
Found everywhere but most suggestive of
This recent earthly process we see drawn
Between two sentient beings, long called "love."
Lucretius sang a version of this song
Two thousand and some years ago but failed

To make it quite cohere, since he was wrong
(As was this Epicurus he unveiled)
About reality—*as are we all*
By sheer necessity. For, how could he,
Or *anyone*, back then or now, *not* fall
For the *illusion* of reality,
Which is *constructed*, not out there as shown?
Yes, nervous systems studied have revealed
That what's outside our skull cannot be *known*
Within but only *guessed at*—our best yield
With what weak instruments we've been bequeathed
By evolution's strict priorities,
Through which we're shaped by needs of our own niche
As ecological economies.
This is to say that sugar is not sweet
To anything but brains evolved to find
It so. And colors are but how we greet
Specific wavelengths (when not color *blind*)
Because our species has developed three
(Or, rarely, four) such cone cells to detect
Those lengths of radiation waves most key
To *our* survival—*not* to mean "correct"
Though, as is shown with other species' eyes,
Which see things differently with more or less
Of these same types of cells. And this applies
To every sense a species might possess,
Such as magnetic fields or heat, or tastes

Of acid, gas, or other signals shown.
These differences reveal how things are *traced*
And *not* how they exist out on their own.
In simpler words that have been said before
So often, yet so rarely understood:
We all experience these things explored
Not as they are but as *we* are. Why should
The fact that two observers will agree
On what they'd just observed mean *both* are right
When all the while *neither* can but see
Past their endowment, which just *seems* keen sight?
This strange delusion of sufficient range
Of vision confidently felt by each,
Despite their flagrant lack, is just what brains
Do best: pretend their models *have* no breach
Among their inputs, so to best maintain
A user interface from out this wealth
Of data simplified enough to frame
A unifying agency called "self."
Now, this unlikely, though convincing, sense
Of unity we feel, somehow, amidst
The chaos of diversities immense
At work beneath the hood, is how we're fixed
Neuronally to better navigate
This world that is our simulacrum's hold.
For, networks of robotics long innate
To our embodied brains, once they've foretold

Their higher functions what to ascertain
In our environment that could upset
That equilibrium we need maintain,
Can choose alternatives of lesser threat.
More yet, this unity we feel belies
The fact our cells all die and are replaced,
At varied rates, non-stop. And this implies
That we're composed today of stuff that's based
Upon the plan of former stuff now gone,
Like all those planks of wood that over time
Were substituted with their like out on
That ship of Theseus, maintained as shrine
Across the centuries, until it came
To seem a paradox to thinkers who
Now pondered if it should be called the same
Ship that our long-dead hero really knew.
For, by replacing its components, one
By one, until there were not any now
Original once all was said and done,
What *was* it in this vessel, from its prow
To stern, that could be reasonably thought
"The same"? Of course, it is the thing's *design*.
And while this leaves it a mere copy wrought
Of something that is gone, *we redefine*
This likeness as authentic, which but shows
How any whole is worth more than its parts,
And how each *part* from which it is composed

Contains *its* meaning where its *pattern* starts.
Yes, take an organ from a body, say.
Its value as an object cannot be
As flesh itself but as its *role* to play
Within a working *process*. This is key
To everything in life, down through those cells
From which all living tissue's made. The bits
They're made of have no meaning by themselves,
But only seen as what their *use* permits
Within some higher system's functioning.
And by the time we've reached true *agency*—
That scope in which an organism brings
Self-reasoned causal power's currency
To bear upon the world—it's shown quite clear
That things themselves mean less than what their role
Is in a certain process's career.
(*The meaning of the part is in the whole.*)
But back to choosing—in it we carve out
Our few degrees of freedom from what's *thought*
Should be determined strict as fate about
Us, as determinism's wrongly taught.
Yes, these same experts say we have no will
That's free because to pick an option turns
Upon all prior happenings fulfilled
For which the picker has no claim discerned.
In other words, said author of this act
Herself depends upon such things realized

That made *her* action possible, in fact,
And that she couldn't have done otherwise.
And this is but *exquisitely* untrue,
Of course, despite the solid craftsmanship
Of such deductive logic, as its view
Depends on blind acceptance that one skips
Causality's determined laws each time
An agent chooses to control the way
Said laws effect the course of *her* design,
As if just *one* trajectory's in play.
But picture to yourself how this might work:
Without that element of choosing left
From right upon some forking path, we'd shirk
All chance to use what knowledge we'd assessed,
Resulting in a state where knowing things
Were just the same as not, since all was fixed
To play out rigidly on puppet strings
Regardless of an agent's well-planned twists.
No, choosing between options that may *each*
Themselves be found within causation's chain
Does *not* entail some necessary breach
Of laws through which our nature is constrained.
Determinism, after all, is *not*
The same as *predetermining* a fate.
It is compatible with our best shot
At how a certain system's future state
Derives, *at length*, from out its current one

Without an intervention *from outside*,
Which doesn't rule out alternates that run
Within said system, *causally* supplied.
The difference has to do with *meaning*—that
Through *information* on these future states,
Discriminating between options at
Each fork that possibility creates.
In other words, although we cannot cause
Or pause the wind itself, we *can* control
The way its course effects our own with laws
That help us trim our sails toward our best goal.
And this control upon determined things
Is no more contradictory than how
A thermostat restrains unwelcome swings
Of temperature within that realm endowed
It. Yes, that human agent who'd employed
Its mechanism to respond to change
From out some chosen stasis best enjoyed
Is sharing that control within *her* range.
Another way to word all this about
The type of freedom agency can wield
Is this: Although those choices found throughout
Our world may be, *in of themselves*, revealed
As but determined, such does not entail
That we, as knowing agents, are not free
At least to *choose among them* in that Pale
Of outcomes possible when they're foreseen.

Now, back to our observers, whom we'd left
In some agreement as to what *they'd* seen.
Historically, concordance of such heft
Was viewed as proof of some "objective" being—
Past the noise subjective bias rings
Upon the seasoned scientific ear—
But *neither* viewer had observed those things
An sich—external to how they appear
Portrayed by *fleshly* means—but just within
Their ken, which had itself evolved to meet
Quite different needs back while some fen had been
Their habitat instead of poured concrete.
All this is just to show that it's desire
Rather than causality that draws
Reality's ontology, inspiring
Life from out of information's laws.
Its impetus pervades the fabric of
That top-down modelling of how things can
Become—which, bottom-up, is tweaked by stuff
The senses furnish that refine the plan.
Yet note: This "will" cannot be *truly* "free,"
Especially in that ghostly sense Descartes
Had spooked us with, wherein the very key
To how our bodies move is in the cards
Played seance-like *beyond* what physics moves,
Like cats or rats, whom he would grant no soul.
And he was right: They don't, *which further proves*

*The same for us, their cousins in this whole
Descent we've made from out those very first
Prokaryotes on earth three billion-some
Odd years ago. Of course, to those more versed
In nitpicking, we should concede the dumb
But valid point that "soul" can also mean
Another thing as well, like character
Or personality, when we are keen
On it, in someone. But we must demur
When told these traits will then ascend from out
The body that created and conserved
It, just to flourish in thin air, no doubt,
Where nothing feeds such circuitries of nerves
That are the stuff of which all thought is made.
And given this, we see our every thought
Is *physical* and leaves a proven change
Upon the brain in which it had been wrought,
Which means, of course, these products of the mind—
*Which is the process of a working brain
And nothing more*—cannot be reassigned
To flesh outside these neurons' own domain,
Where they'd developed in connection, full
Reciprocally, with that same body it
Had grown with from the start—"dyed in the wool"
Inseparably through interaction's fit.
And even harder to explain by far
Is how this pattern of emergence, where*

These nerves had done their work, could somehow start
Again *without them*, fostered by pure air.
For, after all, you'd be as shocked as me
To mark some simpler engine than a brain—
Say, one that merely changes energy
Into some movement's use, not ascertains
A thing like *meaning*—yes, and then observe
Its work continued *once it's been destroyed*.
How different is this process made by nerves
Once *they're* removed from how they'd been employed?
If products such as these could be sustained
Without all that machinery that built
Them, why expend the efforts that had framed
Their prospect well before this milk was spilt?
Such industry expended without need
Of any kind acutely contradicts
A law of nature that, from smallest seed
To largest forest, never fails: a strict
Economy that underwrote the first
Cell viable and, through it, then constrained
The many consequences *it* dispersed
Engaging with this world it now attained.

[To be continued.]

—David Borodin, October 24, 2024 through March 10, 2025

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