

“Wonder is not wonder!”

FQXi Essay Contest entry

*Wandering Towards a Goal*

*How can mindless mathematical laws give rise to aims and intention?*

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“Wonder en is gheen wonder!” was Bruges-born polymath Simon Stevin’s maxim (in late-medieval Dutch). A very bold claim in sixteenth-century Europe, especially if you fully grasp what he meant: In line with utmost progressive renaissance thought, Stevin claimed that all happenings, however wondrous, complex or inconceivable at first view, eventually can be explained merely in terms of scientific interaction laws, although these laws are not all known or even accessible to us (neither then nor now).

In the almost four hundred years since Stevin’s time, science has without any doubt progressed beyond his imagination. And although as an individual one can wonder at the evocative ‘beauty’ of scientific theories or at the condensation of universal regularities in terms of ‘elegant’ equations, the essence of Stevin’s adage still holds true, or at least within scientific communities that is. I therefore have to admit being somewhat surprised by this year’s FQXi Essay Contest theme; it re-raises a quite philosophical discussion topic I considered, again within scientific communities, closed. Let me explain.

A textbook example of a Stevin-style shift from a “this-is-unnatural!” intentional view to a plain physical-interactional view is provided by man’s interpretation of gravitational pull. To the Greek of the School of Aristotle, it was the ‘purpose’ of all objects to be located at the center of the universe, which at that time was believed to coincide with the center of the earth. Therefore it is all objects’ deliberate ‘intention’ to move towards the ground. Yet two millennia of deep thoughts and hard labor by many scientific giants have taught us that gravity is just an attractive force between all types of matter – or better: energy – whatever its location, that is induced by the aimless curvature of four-dimensional space-time. Einstein’s relativistic field equations only capture the latter, not the initial purposeful view.

The universal intentionality in the behavior of ancient Greek objects thus appeared to be in the eyes of their beholders only. And guided by all scientific progress we have achieved ever since, I and many others have understood that analogously any form of apparent intentionality emerges from our natural intention to conceive the multilevel complex reality in terms of easily intelligible, as-if-deliberately-aimed, conduct. Indeed, the more complex the system we observe becomes, the more easily our view is fooled towards a deeper purpose.

Going from the four basic forces of physics, over biological evolution by natural selection, to present-day personal or socio-economic behavior, phenomena are typically considered to gain

intentionality. Or certainly the existence of humanity must have a higher purpose? Yet chemicals – through physics interactions – making species crave for survival and reproduction, the latter (un)fortunately (depending on your view) inducing accidental copying errors, resulting in slight interspecies variations that yield minimal yet sufficient differences in further survival and reproduction capabilities, moving towards co-evolution, et-cetera, have no interactional intention whatsoever. Stating that relativity theory makes it a photon's ambition to move at the speed of light is equally irrational.

Any apparent aim that is perceived in mindless laws or in the action that results from them is indeed just that, an aim-oriented perception. We have learned from science that 'purpose' is just a subjective interpretation, resulting, behavioristically, from our natural intent for quick-and-dirty grasps of all kinds of phenomena, and, psychosocially, from a fear of nihilism that appeared to be a very infectious belief-based meme. For seeing purpose is both a necessary condition and a highly effective sales-argument for any supernatural purpose-giver. I consider it very unfortunate that four centuries after Simon Stevin, this is still considered a bold claim by many today.

Let me therefore remind you of the "absurdism" stance conceived and preached by French writer Albert Camus: No, there really is neither purpose nor meaning to anything happening in the universe, but as long as we are around and aware of this, let us get the mutual best out of our intentionless understanding.