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Essay

Is There a Hidden Pilot for Life: The Illusion of Self and the Reality of Process

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Abstract

In this essay we have presented a picture of "life" as a continuous unfolding of complex nonconscious physical and chemical processes governed by their laws, which are automatic in nature. The endlessly adaptive nature of the complex processes of life is highlighted here. We have showcased how physical laws can produce seemingly "intelligent" outcomes in simpler systems such as bacteria, slime-mould, including water, appearing as emergent living qualities like choice, intention, or consciousness. We argue that there is no central ghostly "self" pulling strings to activate any living action, rather it is automatic physical and chemical processes driven by biological cells (neurons in our case) to adapt to any given situation. We have tried to address here whether we are living in an autopilot mode.

Keywords: life; self; intelligence; brain; free will; consciousness

A question we always ask, what is life? Is there a central controller? "Life" since ages has been very mysterious to us and persists to this date. So, let us investigate this together. When we look more closely and in detail with scientific methods, we observe an endless flow of physical and chemical processes governed by their laws. For example: a single cell organism like a bacterium that can move around, feed, multiply, avoid dangers, and even indulge in sex, can be explained by physical and chemical processes [1]. The pattern of cause and effect can be clearly observed here. As an example, we clearly observe that a bacterium responds, predicts, and adapts to the situation through a coordinated network of chemical reactions and physical processes which appear automatic rather than consciously driven [1]. This automatic function resembles choice, intention, or consciousness of the bacterium. I think it is now appropriate at this juncture to introduce and mention briefly about "illusion of intelligence" as this will shed some light on the present discussion.

Intelligence is the process of adaptation for survival, which includes choice, intention, or consciousness. So, to understand this aspect, let us consider as an illustration a slime-mould being placed in a maze with food at two ends. We observe that the slime-mould extends branches to explore all the possible paths and eventually detects the food at both the end guided by physical and chemical cues. With time the flow of nutrients detected as chemical signals causes its tubes with more traffic to widen and strengthen. The portion (path) with low flow of nutrients will be physically reabsorbed (retracted) and will appear to us as if the organism has intelligently found the most efficient shortest path to the food at both ends and strengthened it by reinforcement due to physical and chemical reasons [2-4] (it appears as solving the maze problem). This is analogous to water finding its way out through a crevice (channel), water can also solve a maze by exploiting fluid dynamics principles like pressure and surface tension, where the pressure from the incoming water pushes the air forward, and if the path is incorrect, the air pressure prevents the water from flowing in (see more such examples in reference [5]). These are good illustrations to showcase how physical laws can produce

seemingly "intelligent" outcomes. So, can one attribute living qualities such as choice, intention, or consciousness to water, slime mould or bacteria capable of exhibiting intelligent outcomes?

Similarly, if we now consider the human brain, we see that the brain responds, predicts, and adapts to any situation by the firing of neurons in the neural network. We observe that the networks connect and disconnect along with the electrochemical signals travelling in the network, and these signals give rise to thoughts and actions [6]. These processes are automatic and it happens without our awareness [6]. For example, breathing, walking, adjusting to temperature, and even remembering the way home, are all events in which we do not consciously direct the electrochemical signals. Even our so-called decisions (related to free will) usually emerge from our accumulated experiences and automatic (nonconscious) evaluations before we ever become aware of these events. This then raises a doubt about the idea/presence of an inner commander "self" giving orders. It is simply a useful story we tell to ourselves about our inner ghostly self, even though we know that it is not how the brain actually works. There is no central ghostly "self" pulling strings to activate any action, rather it is automatic physical and chemical processes carried out by neurons to adapt to a given situation.

The above arguments challenge our long-standing beliefs about our free will and selfhood, because we would like to imagine that our lives are steered by a conscious pilot, i.e., "I" am in control. If we strip away the stories (the ghostly "self"), then what remains is a body and brain running in autopilot mode which is shaped by biology and environment. For example: A person touching a hot surface and instantly pulling back; here the nervous system does the job before we are aware of it i.e., the decision has already been made before we decide to act. Libet in his in-detail experiments found that brain activity precedes the conscious awareness of the intention to act, challenging traditional notions of free will [7]. The same principle is applicable in all the activities in each moment of our daily life. For example: we eat only when we feel hungry or we are tempted, avoiding threats when they are felt, seeking comfort when it is required, so all actions are driven by ingrained processes that keep the organism alive. Here we infer that the automatic (nonconscious) processes of the mind are the actual power (processor) driving us, while our conscious awareness is just the surface-level presentation (is the result - a display).

Above understanding and realization about the automatic (nonconscious) processes of the mind should not make anyone disheartened, on the contrary we should appreciate the elegance of how richly these processes interact. We should appreciate how the brain juggles countless inputs such as light, sound, memory, and emotion at once, producing a smooth stream of experience. All these processes have different processing time scales, but the stitching together of all these processes is automatic in the brain, and matching and fitting them in time makes the feeling of experience seamless. For example, when we walk through a crowded street, dodging people and hearing fragments of conversation, there is not any central "I" that calculates every move. The brain keeps predicting the moves in the background, updating the moves moment by moment, so we feel that life flows without any pause with no dead time (no blackouts).

Philosophers have long been struggling to understand the nature of self, consciousness, and free will. Many argue that without these qualities human existence loses its meaning. But, perhaps the presence of these qualities for having a meaning does not need a hidden pilot. Life is meaningful precisely because it flows with continuity without any pause, expressing a feat of evolution without a separate requirement of an agent hovering above it for a "functional life" to exist. A search for a "phenomenal life" would be a detour from seeing the simplicity of how life really works. It is a nature's feat that we as organisms have been tuned by evolution to survive. Thus, for the survival of the species itself, no ghost in the machine is required.

Some might argue that this view strips away human dignity i.e., are we machines? But I would argue the opposite, we now understand the ground reality and this understanding grounds us more deeply in reality. We can now see ourselves as natural systems, continuous with the world around us. We can now see that we are not apart from the world but fully woven into it. The brain's activity, beating of the heart or the metabolism of a cell and so on, is part of a vast chain of processes which stretches back to the first molecules of life. In this light we can see that the boundary between "self" and "world" begins to blur, and we are unified and not apart, there is something liberating in this understanding. If much of what we do arises automatically, then life is not a constant burden of

choice but a flow to be recognized and relished. This does not make us passive because the flow of the patterns themselves are dynamic and adaptive. The brain keeps learning, keeps reshaping itself, keeps building habits and keeps adjusting to new conditions. What we call our character, and even our freedom, are not a gift from a mysterious inner self but the outcome of the brain's adaptive plasticity happening nonconsciously. So, we are not mere machines having a central commander but we are a living process, changing from moment to moment.

Now let me put the crux of this essay which focuses on an illusory pilot: Actually, the sense of an "I" or a "true self" acting as the owner or the agent is what is illusory (see also reference [8] proposing another perspective with a similar view). This is so because when we look closer, we find there is no central "pilot" pulling the strings for our actions. We find only distributed processes of neuronal, hormonal, and bodily activities unfolding automatically according to physical laws and past conditioning as discussed in the essay. The feeling of love, care, responsibility, creativity are all real processes as we see their psychological and physical effects directly, first-hand. The illusion is only when we introduce the ghostly agent "I," like saying "I, my true self, chose to care." It seems that it comes from some inner agent inside me, when in fact the care emerged from biological processes and it did not require a separate "self" to author it. As the concept of illusory "I" is difficult to grasp, to make it clearer, let us consider an example of a "rainbow": The rainbow looks real to us, we can see it, take a photograph of it and we think there is a physical "object" in the sky called a rainbow. But in reality, it is a pattern created by refraction of light through water droplets, seen by the observer at a particular angle, and the rainbow is not an object; it is an illusion - just like "I." So, "the self is an illusion, but the processes are real." In tune with our title: "The pilot is an illusion, but the flight is real." The only question may now arise – what is the purpose of this flow of processes? What is the point of life? Who is living it? Who is caring? To answer this: the purpose is not something that is imposed from outside the processes by a pilot, the purpose emerges from the flow itself. Processes such as survival, adaptation, creativity, care and so on occur naturally due to the automatic flow governed by fundamental physical laws. In the case of humans, because of language and culture, these flows become self-reflective, which is why we feel there is a narrator or a ghostly self (pilot) inside.

In conclusion, if we step back and look, a clear picture emerges: "life" is a continuous unfolding of complex nonconscious processes governed by physical laws that are automatic and endlessly adaptive. The notions of self, consciousness, and free will, though they are powerful concepts in culture and philosophy, are illustrated as mere illusions here. They may be useful for storytelling, but not essential for survival. In essence, "to live" is, to be carried along with this flow, not to stand outside it directing the flow. Perhaps accepting this will offer a clearer view of reality. So, we can honour the marvel of life without the need for any hidden ghostly controller (a pilot). Here we would like to point out that the processes giving rise to emotions, love, care, responsibility, and creativity are simply combinations of nonconscious automatic neuronal and hormonal activities that reward us with joy or punish us with distress. These qualities are not illusions but are real, just as the melody of a symphony is as real as the vibration of strings. Thus, the richness of human existence emerges from these dynamic combinations of neuronal and hormonal processes giving rise to warmth, meaning, and depth in life and making our lives profoundly human. This seamless interplay of automatic processes and meaning generated by them should be appreciated with humility.

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