Does the Universe Have a Purpose?

SCIENCE CAN’T STOP TALKING IN TERMS OF ‘PURPOSES’, BUT IF THE UNIVERSE CARES ABOUT US, IT HAS A FUNNY WAY OF SHOWING IT

Objectives of “Purpose”

- Revisit this ever-reoccurring question in the light of modern Science
- Listen to two highly-informed opinions on the matter
- Ask why anyone should think there is a purpose to existence
- Explore the arguments against there being any purpose
- Examine a fallacious argument from a perspective of Philosophy
- Ask some follow-on questions to explore later
- Open a discussion on these topics in the style of a Socrates Café
What does Science have to say?

- Physical scientists (e.g., physicists) dream of a Theory of Everything expressed in the language of pure mathematics and faithful to the Standard Model of particle physics.
  - Steven Weinberg wrote in his book *Dreams of a Final Theory: The Search for the Fundamental Laws of Nature* (1993), "The more the universe seems comprehensible, the more it also seems pointless."

- Life scientists (e.g., biologists) think that Neo-Darwinism expressed teleonomically in terms of "selfish" genes and natural selection explains enough without requiring physics ... or God
  - Can there be a Theory of Everything that doesn't include Life? Do all explanatory arrows point downward [reductionism] from, say, societies to physics as Steven Weinberg insists. Can explanatory arrows point upward ... to emergence?

- Here we see the two basic aspects of science:
  - Emergence: can be best described as the Gestalt property of a complex system. In a complex system, behaviors emerge which appear to adapt to conditions for which the system was not intended. In other words: "much arises from little."
  - Reductionism: a related approach to complex systems by saying that systems are no more than the sum of their parts. In physics these rules are frequently called the Lagrangian: a mathematical function that summarizes the dynamics of a dynamic (deterministic Newtonian) system.
  - Jeremy Butterfield, Fellow of the British Academy and science philosopher [noted for his work on philosophical aspects of quantum theory, relativity theory and classical mechanics], claims that emergence is logically independent of and compatible with reduction.

Where does that leave us?

- Still wondering ...
  - American theoretical physicist, futurist, and communicator and popularizer of science Michio Kaku asserts that even with these modern tools of reason: whether the universe has purpose is not a question that can be answered by any known rational means; it is indiscernible. Every if there is some objective, transcendent purpose to the universe, it does us no good unless we can independently verify what exactly it is. If it comes from God, we're in even worse shape because people do not even agree on God's existence; those who do agree God exists disagree about what God is, what God does and what God wants. Without some objective means of verifying our knowledge about God, a divinely imbued purpose, even if it exists, is functionally unknowable and doesn't do us much good.

- So, let's look at some well-informed opinions ... not scientific, but maybe the best we have:

Does the Universe have a Purpose?

- Perhaps: Paul Davies - Physicist, cosmologist, and astrobiologist. Director of the Beyond Center at Arizona State University.

Does the Universe have a Purpose?

Not sure: Neil deGrasse Tyson

Anyone who expresses a more definitive response to the question is claiming access to knowledge not based on empirical foundations. This remarkably persistent way of thinking, common to most religions and some branches of philosophy, has failed badly in past efforts to understand, and thereby predict the operations of the universe and our place within it.

To assert that the universe has a purpose implies the universe has intent. And intent implies a desired outcome. But who would do the desiring? And what would a desired outcome be? That carbon-based life is inevitable? Or that sentient primates are life’s neurological pinnacle? Are answers to these questions even possible without expressing a profound bias of human sentiment? Of course humans were not around to ask these questions for 99.9999% of cosmic history. So if the purpose of the universe was to create humans then the cosmos was embarrassingly inefficient about it.

And if a further purpose of the universe was to create a fertile cradle for life, then our cosmic environment has got an odd way of showing it. Life on Earth, during more than 3.5 billion years of existence, has been persistently assaulted by natural sources of mayhem, death, and destruction. Ecological devastation exacted by volcanoes, climate change, earthquakes, tsunamis, storms, pestilence, and especially killer asteroids have left extinct 99.9% of all species that have ever lived here.

How about human life itself? If you are religious, you might declare that the purpose of life is to serve God. But if you’re one of the 100 billion bacteria living and working in a single centimeter of our lower intestine (rivaling, by the way, the total number of humans who have ever been born) you would give an entirely different answer. You might instead say that the purpose of human life is to provide you with a dark, but idyllic, anaerobic habitat of fecal matter.

So in the absence of human hubris, and after we filter out the delusional assessments it promotes within us, the universe looks more and more random. Whenever events that are purported to occur in our best interest are as numerous as other events that would just as soon kill us, then intent is hard, if not impossible, to assert. So while I cannot claim to know for sure whether or not the universe has a purpose, the case against it is strong, and visible to anyone who sees the universe as it is rather than as they wish it to be.

Perhaps: Paul Davies

Discussions of cosmic purpose are loaded with cultural baggage, so to answer the question of whether the universe as a whole has a purpose—and if it does, what is meant by that word—it first need to get at the heart of the scientific worldview. Scientists often wax lyrical about the scale, majesty, harmony, elegance, and ingenuity of the universe. Einstein professed a “cosmic religious feeling.”

Let me give the flavor of what this sentiment entails. As the cosmic drama unfolds, it looks as if there is a script—a coherent scheme of things—to which its evolution is conforming. Nature is not an arbitrary juxtaposition of events but the manifestation of ingeniously interweaving mathematical laws. That much is agreed. But what about a purpose to it all? If there is a script—a cosmic story to tell—isn’t that already a sort of purpose? Many scientists are quick to pour scorn on the suggestion. Richard Feynman thought that “the great accumulation of understanding as to how the physical world behaves only convinces one that there is a script.”

A familiar criticism is that concepts such as “meaning” and “purpose” are categories derived from human discourse, and cannot be projected onto nature. But this is a criticism that can be directed at scientific concepts in general. All attempts to describe the universe draw on human categories; science proceeds precisely by taking concepts that humans have thought up, often inspired by everyday experience, and applying them to nature. Pierre Laplace treated the universe as a gigantic clockwork machine, and Richard Dawkins has described living organisms as gene-machines. But machines are also human constructs, and mechanism is a human concept just as much as purpose. It is no less legitimate to seek evidence for something like purpose in the universe than to seek evidence that the universe is a mechanism, or a computer, or whatever other human-derived category resonates with what we observe.

Where, then, is the evidence of “cosmic purpose”? Well, it is right under our noses in the very existence of science itself as a successful explanatory paradigm. Doing science means figuring out what is going on in the world—what the universe is “up to,” what it is “about.” If it isn’t “about” anything, there would be no good reason to embark on the scientific quest in the first place, because we would have no justification for believing that we would thereby uncover additional coherent and meaningful facts about the world. Experience shows that as we dig deeper and deeper using scientific methods, we continue to find rational and meaningful order. The universe makes sense. We can comprehend it.

Science is a voyage of discovery, and as with all such voyages, you have to believe there is something meaningful out there to discover before you embark on it. And with every new scientific discovery made, that belief is confirmed. If the universe is pointless and reasonless, reality is ultimately absurd. And if that something were a purpose, then it is also incomprehensible, and the rational basis of science collapses.
A Perspective from Philosophy

Consider a derived version of our original question: Do the Earth and mankind have a purpose?

If so, then the universe does too, ipso facto? Hmm ...

This is a glaring example of the slippery slope fallacy. Just as the universe might have intrinsic purpose, we could have intrinsic purpose regardless of whether the universe as a whole does. Our existence and actions can still have purpose to us, even if the universe as a whole is indifferent to us.

Further, because we are all human beings with shared interests, shared needs and shared values, our actions can transcend our immediate self-interest. Our concepts of morality have value to us because for humans (as with most species) — to paraphrase Dutch primatologist and ethologist Frans De Wall — cooperative group living is not a choice but a survival strategy; we are obligatorily gregarious.

None of us has the luxury of moral autonomy because we are innately bonded and interdependent. We can recognize that while moral choices have value for us as a species and our daily experiences have subjective meaning, purpose — like morality — is a human construct whose value lies purely in its utility.

What’s Next?

Possible new questions to explore ... a la Socrates Café?

(1) “Is cosmological teleology unreasonable?”

... Cosmological Natural Selection ...

... Evolution as the lingua franca of a Universe expressing itself ...

... Could Purpose be an emergent property, like Morality?

(2) “What should be the raison d’être of humanity?”

... in the post human era ...

... rise of trans-humanism thinking ...

... transcending our human condition, our biological limitations ...