

Book Review

Review of Paul Davies' Book: Cosmic Jackpot: Why Our Universe Is Just Right for Life

Stephen P. Smith*

ABSTRACT

As I agree with Davies remarkable conclusions, despite our disagreements, his book is very worth reading in my most critical opinion. Remember, our felt tension returns value to science. You can find this book at Amazon http://www.amazon.com/Cosmic-Jackpot-Universe-Just-Right/dp/0618592261/ref=cm_cr-mr-title.

Key Words: Universe, life, evolution, multiverse, intelligent design.

Davies' broad knowledge shines in the "Cosmic Jackpot". He provides a very impartial survey of physics and cosmology, taking the reader through six chapters before getting to the heart of the issue: the Goldilocks enigma. All theories are considered, but how does science account for the fine-tuning of constants that life depends on? Regarding the "dark energy density", Davies (page 149) writes the following. "The cliché that 'life is balanced on a knife-edge' is a staggering understatement in this case: no knife in the universe could have an edge that fine."

The politeness extends to multiverse theories in Chapter 8, including a universe with laws that are location dependent due to spontaneous symmetry-breaking, and going to the extremes of string and M theories. This reduces the life-giving conditions to the "observer effect", we just happen to be in a lucky corner of the accidental universe. Davies (page 170) writes: "Cosmology is thereby transformed into an environmental science, in which a basic part of the explanation for what we observe in the universe depends on features of the local cosmic environment." The polite Davies writes on the emotional cries that come with this approach, and he questions if the approach is actually scientific. It is not like we can travel to the fall corners of the universe to sample these various locations, and some pockets may be beyond our ability to observe. Davies comes to the rescue by implying that there may be "indirect evidence" that can refute these theories. He (page 175) writes, "if a physical parameter vital for life is ten times more bio-friendly than it needs to be for us to exist, this too should raise suspicions that random chance is not the explanation and that 'something fishy is going on'". This is a very unconvincing argument for the accidental universe that has not found a justification of its claims from first principles, while taking itself far from empirical science. Davies is too polite to say this, but he tries a different approach.

In the second half of Chapter 8, Davies goes from polite to the ridiculous. He treats multiverses of infinite size containing duplicated people, fake or computer simulated realities, artificial intelligence, fake physics, and fake gods, thereby completing the *reductio ad absurdum*. Sadly, some scientists actually fall for these fantasies, and Davies is sly to use trickery to expose their unfounded affection for technology and the accidental universe. The accidental universe cannot just be a love affair if it is going to remain science.

In Chapter 9, Davies describes the intelligent design controversy, and he falls for the Darwinist propaganda that sees no value in intelligent design. He refers to Richard Dawkins' arguments in "The Blind Watchmaker," forgetting that Dawkins' arguments have been refuted in various places. They

Correspondence: Stephen P. Smith, Ph.D., Visiting Scientist, Physics Department, University Of California at Davis, CA
E-mail: hucklebird@aol.com

have been refuted in my new book, "Trinity." In describing Darwin's theory, Davies (page 193) writes, "the only assumption made in framing this theory is that there will be variation, inheritance, and selection." But these are only conditions of necessity, it remains a leap of faith to assume that conditions of necessity are sufficient to explain life that somehow feels. Where is the gene(s) for feeling? Or do genes feel too? Davies (page 196) admits "that living organisms are contraptions cobbled together from odds and ends as circumstances dictate." He thinks this is enough to refute Michael Behe's "irreducible complexity" argument. But this tenacity for life to co-opt prior structures to bring new novelties into existence is extreme, leading to Behe's irreducible complexities. For example, genes also seemed to be cobbled together into Hox systems, where prior genes from distant ancestors have been co-opted for building entirely new structures. We share 98% of our genes with the chimpanzee, implying that most of our genes have been co-opted from our ancestor apes. We share the same genes, they are only organized differently. Darwin's theory did not predict this co-opting ability of life. Moreover, it is thought that gene mutations within the Hox system can lead to large or abrupt changes in evolution, a direct contradiction of the slow and gradual changes predicted by Darwin's theory. Darwin's theory must assume that this co-opting ability is completely explained by conditions of necessity, and this is only a leap of faith. This ability is every bit as mysterious as biogenesis, and it is continually occurring within evolution. Davies (page 196) writes, "the weak point in the 'gap' argument of the intelligent design movement is that there is no reason why biologists should immediately have all the answers anyway." This reveals a leap of faith too, in a formality that only builds a "tower of turtles" (Davies words from the end of chapter 9) from conditions of necessity.

Advocates of the accidental universe are required to attempt refutation of their theories if their theories are to remain within science. As they are advocates they do this reluctantly. For intelligent design to remain within science these folks need only attempt eager refutation of the same hypothesis (the accidental world), and no mention of a white-haired designer need be made. This tension returns value to science.

Davies (page 196) accuses intelligent design of equivocation, implying that the "intelligent design movement's propaganda is a failure to distinguish between the fact of evolution and the mechanism of evolution." Darwinists equivocate on this point as badly as Biblical creationists. But intelligent design only provides Darwin's antithesis, and this eager involvement is necessary if Darwin's theory is going to stay within science.

Davies is more sympathetic with intelligent design as it relates to fine-tuning and a cosmology that is found bio-friendly. He (page 198) writes that "here the design arguments is largely immune to Darwinian attack." Yet he (page 199) still confuses necessity with sufficiency, praising "a designer of laws of nature that by themselves have such astonishing creative ability without the need for intervention and miracles." We live in a bio-friendly universe with life that somehow was able to transcend above the conditions of necessity driven by laws, and in doing this life felt something sufficient that permitted the co-opting of the past. To describe life's feeling from conditions of mere necessity would seem to require a leap of faith, if not a miracle. The so-called explanations of life (built from conditions of necessity) work just as good if life had no feelings at all.

In the last half of Chapter 9, Davies looks at various conceptions of God, and questions "what is it that determines what exists?" He concludes correctly (in my view) that there must be an innate leap of faith. I could have told him that myself, in different words. It is Aristotle's principle of excluded middle that is an unfounded leap of faith. And it is for this very reason that conditions of necessity are found insufficient to explain the feelings that life offers. But the feelings are sense-certain and not demanding a reason based on conditions of necessity. The feelings source the middle term that had been excluded from reason. What co-opts the past implies a necessary backward causation, a

subtle form of teleology that Davies finds favor with in Chapter 10. And in his concluding remarks Davies finds favor in a self-explaining universe, or a universe that holds a life principle. These are very agreeable choices again, in my view. And my point all along has been that Darwinism is incomplete without Davies' life principle. Feeling is found escaping conditions of necessity by way of a life principle that points to Aristotle's forgotten middle-term. And what is feeling at its deepest level but love? It has been the love of God that drove our evolution. But this is not a white-haired creator God that is held separate from his creation. This God affirms the Trinity, as only a Trinitarian logic can deal with a middle-term that cannot be excluded.

References

Paul Davies, 2007, *Cosmic Jackpot: Why Our Universe Is Just Right for Life*. Houghton Mifflin Harcourt.