

Does natural selection explain the self-organization of the entire cosmos?

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Abstract. Because only enduring systems ultimately persist, physicist D. B. Kelley's theory of *universal selection*, or "preservation of the stable," expounds enormously upon the genesis of every lasting phenomenon in history, making it arguably the most interdisciplinary discovery ever made in science. In his new book, *The Origin of Everything*, Kelley thus shows Darwin's principle of natural selection, or survival of the fittest, to explain not only the origin of species as exposed in 1859, but the genesis of every steadfast assemblage ever to have endured. In other words, it isn't just stable species that are naturally selected to exist, as *all* of Nature's many unwavering systems are ultimately selected. Kelley therefore demonstrates that preservation of the stable is not an innate characteristic of being, but an extremely powerful process, or deterministic mechanism, which absolutely demands fitness from all such ensembles. It therein explains the tremendous amount of variation among Nature's many assemblages, as well as their stability, or order. However extraordinary, it even unites Darwinism and Einsteinian relativity, as it further clarifies the relative formation of every phenomenon ever to have been. Consequently, our Earth isn't the only ecology governed by survival of the fittest, for our entire cosmos is an astronomical ecosystem determined in full via preservation of the stable itself. These findings are also in perfect accord with the stringent demands of modern biology's three-part algorithm, or the three fundamental mechanisms responsible for life's stability and evolution. Remarkably, universal selection has even been confirmed at reputable laboratories through numerous experiments in physics, quantum physics, chemistry and more. While Darwin thus revolutionized all of our various biological sciences by revealing the immense logic behind every adaptation of every species, Kelley holds that universal selection revolutionizes science in its entirety. He claims that it illuminates "the natural origins and therefore the natural order throughout our universe as a whole."

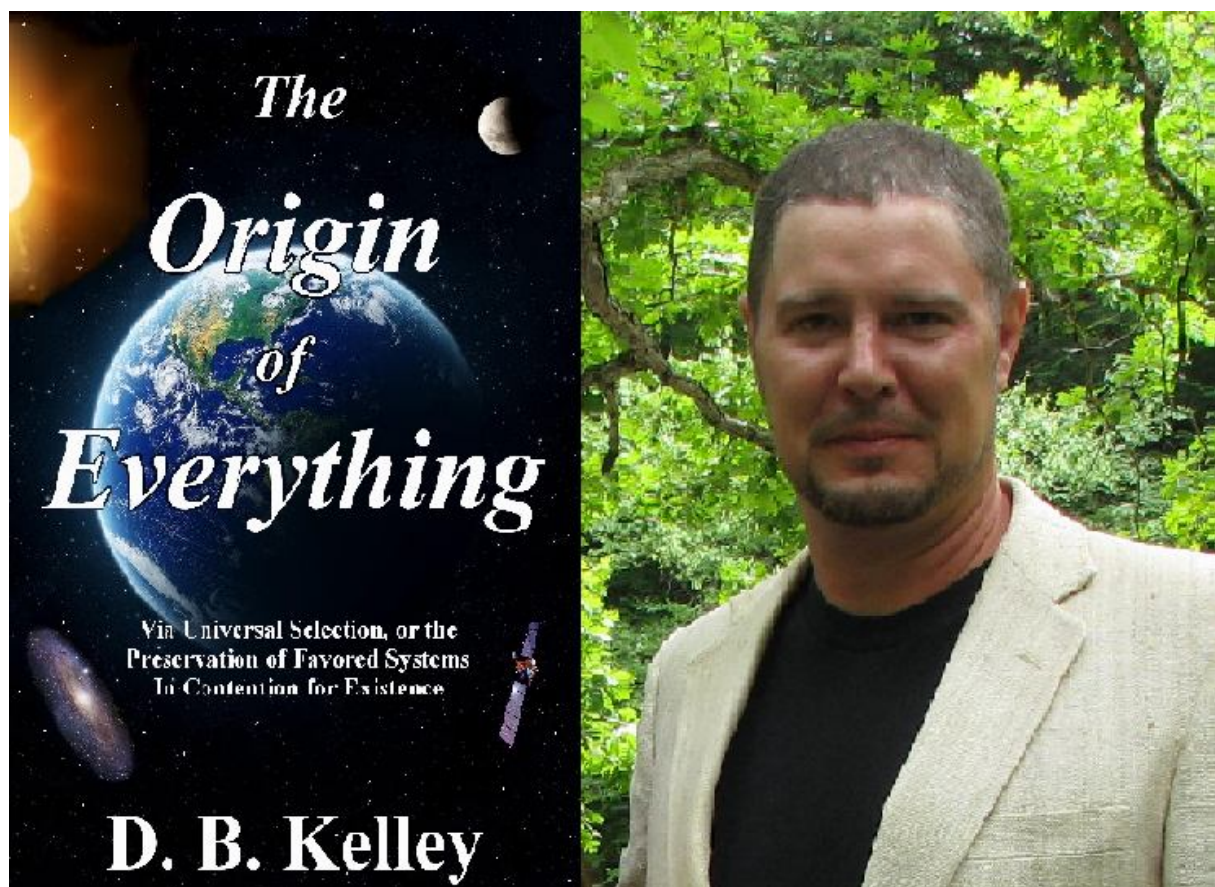
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Synopsis. While the full title of Charles Darwin's historic work is *On the Origin of Species by Means of Natural Selection, or the Preservation of Favored Races in the Struggle for Life*, the full title of physicist D. B. Kelley's revolutionary new book is *The Origin of Everything via Universal Selection, or the Preservation of Favored Systems in Contention for Existence*. Because Nature's innumerable assemblages are ultimately comprised of systems, Darwinian survival of the fittest, or Kelley's "preservation of the stable," is claimed to expound enormously upon the lasting assembly of everything in history. This includes not only genes, adaptations, species and more as shown in biology, but our building blocks, our world and our universe. In *The Origin of Everything*, Kelley therefore demonstrates that all such phenomena are the products of enduring systems, naturally selected.

In first clarifying this through testable results, his theory of universal selection has already been confirmed via numerous experiments in physics, quantum physics, chemistry and more. In quantum mechanics, for instance, it has been corroborated by distinguished physicist Wojciech Zurek of the Los Alamos National Laboratory and his well-accepted process of Einselection, or "environment-induced superselection." Subatomic particles providing the true building blocks behind all of Nature's various objects, Zurek has shown that "Quantum Darwinism" plays a vital role in the self-organization of everything material in classical science. Also called Universal Darwinism since the 1980's and '90's, Kelley's theory has even been proven through countless

experiments by the well-known chemist Julius Rebek of the reputable Scripps Research Institute in La Jolla, California and his all-important process of "chemical selection". Many such findings have been further substantiated at other independent laboratories, thereby ensuring their obvious validity.

To then address biology's critical three-part algorithm, or the three fundamental mechanisms responsible for life's stability and evolution, like living things all systems *reproduce* their own cyclical behavior one generation at a time, they vary through what Kelley calls "system drift," or the predecessor to genetic drift, and only the most favorable ensembles are *naturally selected* to endure. In revealing the means by which information is retained as it is in genetics, physicists now understand that, like DNA, all of Nature's numerous phenomena possess definitive properties, or distinctive capabilities, which are identical in every regard to data itself. Simply in looking to our night skies, for example, we see that they are absolutely teeming with detailed information about our cosmos and its lengthy history, still fully preserved even after many light years of continual travel.



Because only unwavering assemblages ultimately persist, it is through the competitive and therefore commanding process of preservation of the stable that, however extraordinary, the universe maintains an influential preference for lasting ensembles. It is thus selection, or what Kelley calls *selective pressure*, which explains the ecological pressure to exist in every arena. This applies not only to biological entities, but to all of Nature's innumerable ensembles. So entirely unbeknownst to scientists, preservation of the stable is not an innate characteristic of being, but an extremely powerful mechanism. As the most fundamental law of being itself - *i.e.*, maintain stability or altogether desist - universal selection is arguably the most important deterministic mechanism in all of science. Kelley argues "that it is the single principle from which everything stable ultimately arises".

Of course, many biologists have assumed that because our universe appears static, or unchanging, Darwinian natural selection is unnecessary in the explanation of

non-biological assemblies. In other words, survival of the fittest and elimination of the weak are devices that exist only in life. This is inaccurate, however, as it is through their own competitive interactions that many systems grow stronger, some grow weaker, some annihilate others and, also like living things, each eventually degrades over time. Furthermore, over the last 13.7 billion years the universe has not been entirely stagnant. Since the Big Bang especially, our cosmos too has experienced a definitive progression from a state of sheer chaos to being populated by innumerable lasting phenomena.

This is not to say that our universe has maintained its succession as consistently as life. In highly interactive realms like that of our Earth, on a macroevolutionary scale survival of the fittest often leads to greater strength and durability. In other words, while atoms, molecules and species are enormously interactive and can thus bring about new and competitive configurations, the universe as a whole is far more invariable, or unwavering. Throughout Nature, universal selection thereby leads primarily to stability itself. We don't observe the same measures of interaction and, in turn, evolution because, for example, there is so much space between celestial bodies. As shown by Niles Eldredge and Stephen J. Gould in their renowned, 1972 paper on "punctuated equilibrium," stasis is the norm among species; and it's clearly the same for non-biological phenomena in particular. After its conception, however, our vast universe soon progressed from a state of utter disorganization to one of tremendous permanence, or order. And it appears to have made this transformation as a direct result of Kelley's influential principle of preservation of the stable.

Incredibly, this momentous work even shows that each of the greatest revelations in biology since the discovery of natural selection is an elegant fit with universal selection and all that it too so effortlessly reveals. This includes everything from biology's algorithm and entropy to punctuated equilibrium, Dawkin's gene selection, Lynn Margulis and symbiosis, Stuart Kaufmann and complex systems, and correspondingly, even life's origins. It also expounds with remarkable clarity upon the self-organization of everything from the particle-wave duality and subatomic, atomic, and molecular self-assembly to both physics and astronomy at large. In short, all of the greatest discoveries in history not only fit perfectly with Kelley's innumerable findings in selectionism, but they all expound upon one another at length. Much like Darwinism has done from the beginning, this is a direct result of what Kelley refers to as selection's *universal applicability* in revealing *relative order* itself.

He thus claims that universal selection is an extremely commanding mechanism which leads not only to stability but to *greater* stability throughout all such long-term evolution. Just as our Natural History is perfectly continuous, Kelley holds that its powerful and driving principle is continuous as well. One of the most important inferences which can then be drawn is this: not only is our Earth an enormous ecology governed via survival of the fittest, but our universe too is a massive ecosystem determined entirely through preservation of the stable. Explaining the competitive character of all natural phenomena, it sheds tremendous light upon the formation of lasting particles, atoms, molecules, planets, stars and even galaxies, as well as life's own stable origins. While Darwinian natural selection has revolutionized biology as a whole by revealing the influential means through which species and their various adaptations are self-organized, Kelley shows universal selection to be revolutionary to astronomy, physics, quantum physics, chemistry, geology, astrobiology and therefore *science* as a whole. From space-time to the universe at large, he appears to have exposed the deterministic mechanisms or, of all things, the *natural order* by which our entire cosmos is self-organized in full.

For more information on this milestone discovery, visit universalselection.com

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