

"SUPERNATURAL" IS NOT SO SUPER



Does 'supernatural'—as a word or concept—mean anything? Can something be beyond science? If it exists, isn't it natural? Here we present three short takes on this often-used term of doubtful meaning.

If It Exists, It Is Natural

Both the word supernatural and the concept behind it rest on shaky foundations. In fact, they fade to irrelevance in the light of modern, comprehensive views of nature.

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The Random House Dictionary (2nd edition, unabridged) lists twenty meanings for the word “nature,” and two of the most familiar lie at opposite ends of a sweeping hierarchy. In childhood, we are taught definition number three, which describes nature as the comfortably familiar terrestrial environment of flowers, trees, birds, bees, mountains, and rivers. Later we learn that scientists and philosophers elevate nature to a far more inclusive domain encompassing well nigh everything, expressed in definition number five as “the universe with all its phenomena.” I propose that such comprehensive views of nature render the concept of supernatural existence both useless and pointless.

Although nature taken as “the universe with all its phenomena” embodies the broadest verifiable view of existence that humans have been able to discern, it is painfully apparent that many people have no qualms about casually, and often thoughtlessly, invoking beings and occurrences that supposedly reside beyond nature’s purview. The magic buzzword used to accomplish this feat is “supernatural,” which implies that a transcendent, inaccessible realm operates beyond nature and is in some sense superior to it. It is often further suggested that supernatural forces may have created the natural world and continue to control its destiny. Not unexpectedly, the supernatural kingdom has a sort of pecking order based on rankings of authority and gravitas, ranging from gremlins and gryphons at the low end to angels and deities at the high end. By any standard, the evidential track record for low-grade supernatural actors like demons and dragons is very poor, and most of us show that we understand this when the chips are down. For example, if our children sincerely ask whether such things exist, we will sincerely answer “no.” Such prompt and confident insight makes it all the more strange that so many intelligent and perceptive adults are quite easily persuaded to accept the notion of high-grade supernatural entities, the most notable current example being Yahweh/Allah (hereafter, Y/A), the Judeo-Christian-Islamic deity acknowledged and worshiped by more than three billion people worldwide. So pervasive is Y/A’s influence that he shows up even in the business world as perpetrator of the distinctly uncharitable “acts of God” that send insurance companies scurrying for cover.

The acid test for supernaturalness seems to be that something violates one or more physical laws, which is then assumed to mean that it will forever lie outside nature and hence outside science as well. The error in making such an assumption is the failure to recognize that every scientific principle we know of was once external to science and remained so until someone discovered and verified it. Indeed, as famously suggested by Arthur C. Clarke, any technology or phenomenon sufficiently beyond our current experience will appear indistinguishable from magic. By definition, science is a perpetually *unfinished* enterprise whose boundaries will expand as far as knowledge itself can take them and whose growth will continue as long as sentient beings are available to do the work.

Yet even in the face of such clear facts, there is a disappointingly prevalent tendency to regard science as trapped in a fixed and finished corral surrounded by mysterious phenomena it can never comprehend or incorporate. The disconnect here lies not in the perfectly valid concept of mystery but rather in the false conclusion that things not yet understood or explained must be unphysical and hence unnatural. As knowledge progresses, newly discovered and comprehended aspects of the natural world not only account for more and more of what was formerly considered “beyond science,” but also illuminate questions at least as deep, subtle, and meaningful as any raised by religious or supernatural speculations. The strange properties of black holes and dark matter, the counterintuitive time-stretching of relativity, the built-in uncertainty of quantum events, and the relentless evolution of living things over billions of years make the rather naive and pedestrian “miracles” of scripture seem crude and unimaginative by comparison. Even the traditional epitome of nothing, a perfect vacuum, is now under consideration as an incredibly fine-grained, foamlike matrix, a roiling stew in which matter and energy continually exchange roles. Hence it appears more and more likely that matter and the space it occupies are not separate, decoupled entities. As the universe expands, space-time inflates with it and the question of what it expands “into” may have no meaningful answer. Far from being limited or short-sighted, the extended effort of our species to comprehend the power and scope of material existence has led to more advances in understanding (and also to more helpful, practical results) than any other form of human endeavor.

But wouldn’t the argument presented thus far collapse the moment it came up against even a single incontrovertible supernatural event? Well, let’s do a thought experiment. Suppose that tomorrow a young man claims to be able to turn water into

wine and creates a sensation by proceeding to do so. He also cures the sick, raises the dead, and feeds the entire audience of *The Late Show*. *Jeremy M. Harris is a retired research engineer with a lifelong interest in science and a recent fascination with the interactions between scientific and religious worldviews. E-mail: jmharr@sprynet.com.*



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Supernatural

DANIEL R. ALTSCHULER

with

David Letterman from a basket containing one loaf of bread and a six-ounce

Show

can of Starkist tuna. As the weeks and months go by, no one can fault him. Committees of scientists announce that the things he does really happen, but they can't figure out how he accomplishes them. Religious factions, predictably enough, take to arguing among themselves. The Evangelicals are ecstatic and more than ready to ascend. The Jews and Muslims form a precedent-breaking "Coalition of Concern" which issues scholarly bulletins explaining how miracles can be genuine without being divine. The Buddhists point out that reality is merely a way-station on the path to fully enlightened illusion. Eventually a blue-ribbon panel of skeptics is called in but declines to draw any final conclusions until the young man spends a fortnight under close scrutiny by the Amazing Randi. Ultimately, to the consternation of rationalists everywhere, even Randi pronounces him genuine.

If similar events actually occurred and we were stuck with a legitimate miracle worker, what would be the most reasonable course of action? Provided comprehension and edification were the objectives, wouldn't sending the young man back to the scientists be the best choice? They would begin their in-depth study by noting that in every case, the miracles involve an unexplained presence or absence of physical events—after all, you can't break a natural law any other way. They would understand that anything real must function in *some* fashion and that declaring a phenomenon "supernatural" simply cuts off all access to further enlightenment. As already noted, strangeness, newness, and inexplicability are not reasons to conclude that phenomena lie outside nature.

Designating something as supernatural adds absolutely nothing to our knowledge of it, hence we may as well declare the thing *mimsy*, *googly*, or *pixilated*. The descriptor "supernatural" lacks, to borrow a term from the law, probative value, because it is powerless to advance an argument and carries no more information than a shrug. In more formal terms, it may be discarded *without loss of generality*, meaning that nothing substantive is lost or excluded by removing "supernatural" from the roster of useful adjectives.

It is important to bear in mind that putting the idea of supernaturalness or "existence beyond nature" in its proper place involves no meaningful prohibition or censorship of ideas. Zeus, Apollo, Y/A, angels, devils, demons, eternal souls, and the Headless Horseman are as free as ever to compete for our attention and belief. The only change is recognition that if they are real (if their existence reaches beyond our imaginations), then the ever-growing portion of nature that is known and understood will eventually include them.

The Nature of the

It is common to argue about the supernatural. Indeed, entire volumes are written to discuss such things as the existence of "a superhuman, supernatural intelligence who deliberately designed and created the universe and everything in it, including us" as considered by Richard Dawkins in his delightful and influential book *The God Delusion* or as discussed by Daniel Dennett in his excellent *Breaking the Spell: Religion as a Natural Phenomenon*, where we read about "a social system whose participants avow a belief in a supernatural agent or agents whose approval is to be sought."

According to Merriam-Webster the supernatural is 1: of or relating to an order of existence beyond the visible observable universe; *especially*: of or relating to God or a god, demigod, spirit, or devil; 2a: departing from what is usual or normal especially so as to appear to transcend the laws of nature; 2b: attributed to an invisible agent (as a ghost or spirit).

In the Spanish-speaking world, according to the Dictionary of the Spanish Royal Academy, *sobrenatural* is something that exceeds the terms of nature (*Que excede los términos de la naturaleza*). Kant describes *übernatürlich* in the exhaustive *Deutsches Wörterbuch* by Jacob and Wilhelm Grimm this way:

[The] Supernatural occurs insofar as the nearest cause is outside of nature, or when just the way that the forces of nature act in this case is not contained in the laws of nature (*übernatürliches findet statt, insoferne die nächste wirkende ursache auszer der natur ist, oder wenn auch nur die art wie die kräfte der natur auf diesen fall gerichtet worden, nicht unter einer regel der natur enthalten ist*).

But what does *supernatural* really mean? What does it mean to exceed the terms of nature, appear to transcend the laws of nature, or have a cause outside of nature? It is implicitly assumed that it is possible to be beyond or outside nature, but I propose that this is just an illusion.

Certainly there are phenomena that at any particular time in history appear to transcend the known laws of nature. Before Newton it was not understood why the planets moved, and before quantum mechanics it was not understood how an atom could be held together. Were the motion of planets and the structure of atoms mediated by the supernatural? One of the current "myths" of physics. Daniel R. Altschuler is professor of physics at the University of Puerto Rico in Río Piedras and author of *Children of the Stars* (Cambridge University Press).