



FROM OUR SPONSOR **Syfy**

## Here are 5 things serious scientists believe about extraterrestrial life

[f Share](#) [t Tweet](#)

This feature was produced in collaboration between [Vox Creative](#) and [Advertiser](#). Vox Media editorial staff was not involved in the creation or production of this content.

Popular culture has given us lots of ideas of what extraterrestrials might look like, behave, and interact with us. (Mostly by killing us, though occasionally by phoning home.) But it turns out a lot of serious scientists have thought about it, too. Here's what the scientists think.



Simon Conway Morris, an evolutionary biologist at Cambridge, thinks there's a good chance intelligent extraterrestrial life will look a lot like us. Different species independently evolve in similar patterns, Morris argued in *The Runes of Evolution*, and would likely do the same on other planets. "The things which we regard as most important," he said in an interview, "cognitive sophistication, large brains, intelligence, tool making, are also convergent." If there are other planets that look a lot like planet Earth — and the Kepler spacecraft is discovering that there are — then the likelihood of human-like extraterrestrial intelligence on those planets isn't a huge stretch. "If the outcomes of evolution are at least broadly predictable," Morris said, "then what applies on Earth will apply across the Milky Way, and beyond."

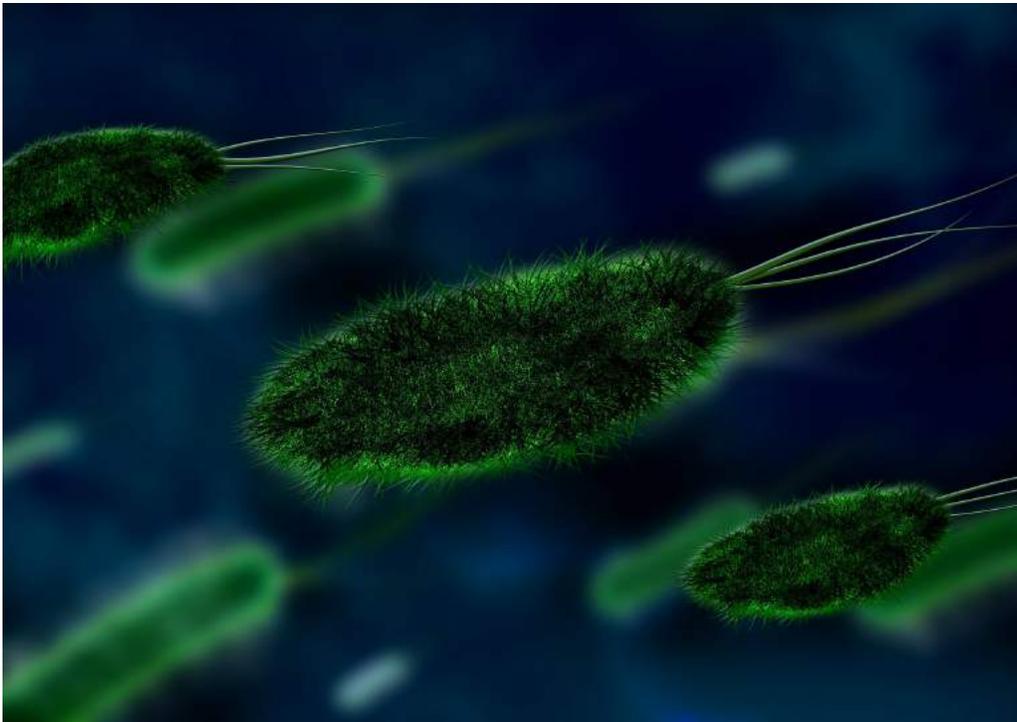


Popular culture has extraterrestrials stepping off spacecraft onto Earth. But scientists, like SETI Institute astronomer Seth Shostak, dispute that idea. Because space travel is a long, far journey and a huge investment, if aliens wanted contact with planet Earth, they would most likely send robots and computers first. "It's not like, the hatch would open and we'll see a strange alien paw coming out," Shostak said in an interview. "It's more likely to be a robotic arm."

But Shostak and other scientists have also suggested that the extraterrestrial visitors could be the machines. Steven J. Dick, an astronomer and then-chief historian for NASA, argued in a paper that extraterrestrial intelligence is most likely "post-biological" artificial intelligence. "Because of the limits of biology and flesh-and-blood brains," he wrote, "cultural evolution will eventually result in methods for improving intelligence beyond those biological limits." And that may make aliens in fact more likely to visit: "Silicon-based creatures are more likely to engage in space travel, having durable systems that are practically immortal," Shostak wrote in an op-ed. "They may be the kind of the creatures we first encounter, if we encounter anyone."



Stephen Hawking has made his opinions on extraterrestrial life very clear. "If aliens ever visit us, I think the outcome would be much as when Christopher Columbus first landed in America, which didn't turn out very well for the Native Americans," he said in an interview. Later, he told reporters that "a civilization reading one of our messages could be billions of years ahead of us. If so, they will be vastly more powerful, and may not see us as any more valuable than we see bacteria." Other scientists have noted that extraterrestrials, like humans, will likely prize natural resources. "I suspect resources would be finite anywhere in the universe," Shostak said.



Cross-planetary contamination is a dangerous possibility that astrobiologists have begun to consider. Foreign microbes might be benign, said John Rummel, then NASA's planetary protection officer, to *Astrobiology Magazine*. But they might not. It's why so many safety protocols have been established to protect Earth from unknown microbes from interstellar samples. "While there should be no similarity between the warm, wet human body and the cold, dry Martian environment, there certainly can be environments on Earth where Mars life might thrive if carried here by a probe or human mission," wrote David Warmflash, an astrobiologist. "Environmental ecology and biospheres on Earth are notoriously complex, so we don't want to release a native Martian microbe on Earth, particularly in 'Mars-like' regions of our planet."



If no one's really sure what extraterrestrial life will look like, the form they're in, or their motives in contacting humans, who knows how they'll act? "It would be like humans meeting trilobites, because aliens could be billions of years more advanced than us," Shostak said in an interview. "They could be aggressive — because aggression is favored in a Darwinian system — but they could be peaceful. No one knows."

It's possible that extraterrestrials may have evolved just like humans — to be capable of both violent aggression and peaceful compromise. But if evolution is based on survival of the fittest, "we have good reason to believe that aggressive instincts will be present in extra as well," wrote astrobiologist Pushkar Ganesh Vaidya. "To what extent alien life can curb their aggressive instincts (or else they will possibly self-destruct) is anybody's guess."

---

**Like the scientists above, Syfy's *Hunters* explores the effects and intentions of extraterrestrial life on planet Earth asking: *What if the biggest threat to homeland security isn't human?*** In this gritty new thriller from Gale Anne Hurd, executive producer of *The Walking Dead*, and Natalie Chaidez, executive producer of Syfy's *12 Monkeys*, Syfy reimagines our very real state of fear in a whole new war on terror.

**Watch all new episodes of *Hunters* on Mondays at 10/9c on Syfy.**

---

This feature was produced in collaboration between [Vox Creative](#) and [Advertiser](#). Vox Media editorial staff was not involved in the creation or production of this content.

