Communicating With Aliens

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For decades, researchers involved in the Search for Extraterrestrial Intelligence (SETI) have scanned the skies for evidence that aliens are trying to contact us. But so far, except for the so-called “Wow signal,” a tantalizingly brief, thus far unexplained narrowband radio burst picked up by an Ohio State University radio telescope in 1977, they’ve yet to find any evidence of a message sent by a faraway civilization.

But imagine that tomorrow, researchers’ wildest dreams are realized, and they pick up a clear, unmistakable communication from deep space. That raises another intriguing dilemma. How would we respond to an alien species in a manner that they would understand? And what should we say to them? After all, it’s a bit much to expect that extraterrestrials—assuming that they possess sensory organs and brains reasonably compatible with ours—would comprehend English or another human language.

“The problem invites us to think about language, communication and intelligence at the deepest levels,” researchers Guillermo A. Lemarchand and Jon Lomberg write in an essay in the 2011 anthology, “Communication with Extraterrestrial Intelligence.”

For centuries, those who’ve speculated about the possibility of extraterrestrial civilizations have been trying to come up with a suitable method for get in touch with them. Back in the early 19th century, the German mathematician Carl Friedrich Gauss proposed mowing giant triangles or ellipses into the Siberian grasslands, in hopes that alien astronomers would spot them and realize that humans were intelligent enough to grasp the basics of geometry. In 1937, the visionary inventor Nikola Tesla claimed that he had developed an electrical apparatus capable of communicating with other worlds, though he never revealed exactly how it worked.

And some have actually tried already. In 1974, astronomer Frank Drake—the author of the Drake Equation, a 1960s attempt to calculate the likelihood of finding planets with intelligent life—used a radio observatory in Arecibo, Puerto Rico to transmit the first-ever radio message deliberately aimed at extraterrestrials. The three-minute message, aimed at a cluster of stars 25,000 light years away, consisted of long strings of ones and zeroes, the sort of binary communication used by computers. When translated into a graphic, however, the code depicts the shape of the Arecibo telescope, our solar system, the DNA molecule, a stick figure of a human, and some of the biochemistry cal of early life.

So far, Drake’s message only has travelled a tiny fraction of the distance that it might have to cover to reach an alien civilization, presuming there is one in the distant star cluster that is listening. That points to another problem with attempting to communicate with distant civilizations via radio: by the time they get a message hundreds or thousands of years from now and send a reply, the humans who initiated the contact are likely to be long forgotten, and in a worst-case scenario, our species might be extinct.

Presuming that we someday were able to transcend that problem by developing some sort of faster-than-light mode of communication—or that the aliens came to us, as the fictional extraterrestrials did in the 1977 film “Close Encounters of the Third Kind”—we’d still have to figure out how to make ourselves understood. In lieu of spoken or written language, some have suggested using mathematics or illustrations of scientific principles to communicate. That strategy, Lemarchand and Lomberg note, assumes that the alien mind organizes ideas and perceptions in a fashion similar to ours, which may or may not be the case. Another idea would be to use a montage of sounds of phenomena associated with life on Earth—from the sound of rainfall and animal noises to the sounds made by babies—as a sort of aural “cognitive map” that would explain the nature of our species to aliens.

But there also are those who argue that we shouldn’t try to communicate with aliens at all. In a 2010 documentary, physicist Stephen Hawking warns that if extraterrestrials with more advanced technology than ours visited Earth, they could exploit or exterminate us, in the fashion that Christopher Columbus’s arrival in the New World turned into a disaster for native peoples. "We only have to look at ourselves to see how intelligent life might develop into something we wouldn't want to meet,” he said.

Article found at:  http://channel.nationalgeographic.com/channel/chasing-ufos/articles/communicating-with-aliens/