

Are we alone in the universe?

By Charles Krauthammer, Published: December 29, 2011

Huge excitement last week. Two Earth-size planets found orbiting a sun-like star less than a thousand light-years away. This comes two weeks after the stunning announcement of another planet orbiting another star at precisely the right distance — within the “habitable zone” that is not too hot and not too cold — to allow for liquid water and therefore possible life.

Unfortunately, the planets of the right size are too close to their sun, and thus too scorching hot, to permit Earth-like life. And the Goldilocks planet in the habitable zone is too large. At 2.4 times the size of Earth, it is probably gaseous, like Jupiter. No earthlings there. But it’s only a matter of time — perhaps a year or two, estimates one astronomer — before we find the right one of the right size in the right place.

And at just the right time. As the romance of manned space exploration has waned, the drive today is to find our living, thinking counterparts in the universe. For all the excitement, however, the search betrays a profound melancholy — a lonely species in a merciless universe anxiously awaits an answering voice amid utter silence.

That silence is maddening. Not just because it compounds our feeling of cosmic isolation, but because it makes no sense. As we inevitably find more and more exoplanets where intelligent life can exist, why have we found no evidence — no signals, no radio waves — that intelligent life does exist?

It’s called the Fermi Paradox, after the great physicist who once asked, “Where is everybody?” Or as was once elaborated: “All our logic, all our anti-isocentrism, assures us that we are not unique — that they must be there. And yet we do not see them.” How many of them should there be?

The Drake Equation (1961) tries to quantify the number of advanced civilizations in just our own galaxy. To simplify slightly, it’s the number of stars in the galaxy . . . multiplied by the fraction that form planets . . . multiplied by the average number of planets in the habitable zone . . . multiplied by the fraction of these that

give birth to life . . .multiplied by the fraction of these that develop intelligence . . .multiplied by the fraction of these that produce interstellar communications . . .multiplied by the fraction of the planet's lifetime during which such civilizations survive.

Modern satellite data, applied to the Drake Equation, suggest that the number should be very high. So why the silence? Carl Sagan (among others) thought that the answer is to be found, tragically, in the final variable: the high probability that advanced civilizations destroy themselves.

In other words, this silent universe is conveying not a flattering lesson about our uniqueness but a tragic story about our destiny. It is telling us that intelligence may be the most cursed faculty in the entire universe — an endowment not just ultimately fatal but, on the scale of cosmic time, nearly instantly so.

This is not mere theory. Look around. On the very day that astronomers rejoiced at the discovery of the two Earth-size planets, the National Science Advisory Board for Biosecurity urged two leading scientific journals not to publish details of lab experiments that had created a lethal and highly transmittable form of bird flu virus, lest that fateful knowledge fall into the wrong hands.

Wrong hands, human hands. This is not just the age of holy terror but also the threshold of an age of hyper-proliferation. Nuclear weapons in the hands of half-mad tyrants (North Korea) and radical apocalypticists (Iran) are only the beginning. Lethal biologic agents may soon find their way into the hands of those for whom genocidal pandemics loosed upon infidels are the royal road to redemption.

And forget the psychopaths: Why, a mere 17 years after *Homo sapiens* — born 200,000 years ago — discovered atomic power, those most stable and sober states, America and the Soviet Union, came within inches of mutual annihilation.

Rather than despair, however, let's put the most hopeful face on the cosmic silence and on humanity's own short, already baleful history with its new Promethean powers: Intelligence is a capacity so godlike, so protean that it must be contained and disciplined. This is the work of politics — understood as the ordering of society and the regulation of power to permit human flourishing while simultaneously restraining the most Hobbesian human instincts.

There could be no greater irony: For all the sublimity of art, physics, music, mathematics and other manifestations of human genius, everything depends on the mundane, frustrating, often debased vocation

known as politics (and its most exacting subspecialty — statecraft). Because if we don't get politics right, everything else risks extinction.

We grow justly weary of our politics. But we must remember this: Politics — in all its grubby, grasping, corrupt, contemptible manifestations — is sovereign in human affairs. Everything ultimately rests upon it.

Fairly or not, politics is the driver of history. It will determine whether we will live long enough to be heard one day. Out there. By them, the few — the only — who got it right.

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