



ONCE UPON A TIME A RATIONALE FOR AN IRRATIONAL THOUGHT

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If you are reading this, it means we have survived another close encounter with the Taurid Complex. Whew! The Taurid meteoroid complex, of which Comet Encke is a member, may have been responsible for the Tunguska Event of 30 June 1908. Apollo instruments on the Moon also recorded a string of impacts, significantly, from 22 to 26 June 1975. Perhaps not coincidental. Mighty, mighty Taurids.

From a geological point of view, small impacts are quite common. Recently, Buratti and Johnson used images taken in 1994 by Clementine to match a fresh 1.5km wide crater with a transient Lunar event which was observed and photographed by Dr Leon Stuart on 15 November 1953.

The celestial neighbourhood isn't really all that safe and quiet, but we seem to be blissfully dismissive of the danger. Objects from outer space do occasionally kill people. "Falling stones" from an air burst may have killed about 10,000 people in China in 1490. But so far we are in general so unconcerned that people who speak forcefully about the threat of Earth impacts are looked upon as kooks and weirdos. Non-professionally qualified proponents are, of course, often lumped with conspiracy theorists.

Are we humans irrational when we discount such threats? Are we being dumb? Perhaps not. As social primates, humans have a pretty sophisticated innate ability to weigh

profit and loss, plus a number of useful preprogrammed behaviours. For example, fecal matter is disgusting to humans, but not to some animals.

However talented or evolved humans are socially, evolution has not prepared us to deal with uncommon catastrophes. Our instincts are still based on basic terrestrial survival. Earth impacts simply do not have the kind of evolutionary pressure needed to produce Earthlings with an instinctive understanding of their place in the cosmos. Small events merely end up as cultural knowledge. Luckily for us, we are getting better at preserving culture. Larger events wipe out local flora and fauna, while catastrophic events causes mass extinctions. Both are uncommon, and their effect is so overwhelming that organisms never have a chance to evolve a response in a classical Darwinian sense. Put it in another way, instead of editing a document or two, masses of documents are deleted wholesale.

Thus we are creatures who intuitively plan on the short term, on terrestrial issues. A normal person would not take any action when confronted with the risk of catastrophic Earth impacts. It is a rational, even correct, choice. You can see this everywhere, every day. You'd probably see it in yourself too. You see it in politicians who are not interested in spending any money for programmes like Spacewatch. It isn't foolish at all; it's just what society wants and demands.

A galactic citizen would sound a bit

crazy compared to normal, terrestrial-minded people. Massive cultural shifts are tremendously difficult to achieve. After all, many doctors still smoke. Normal human intuition is not capable of calculating strategies that pay dividends in such an uncertain manner and in such a long term. Few people can ever adjust completely. So people who speak seriously of sorting out the Earth impact problem are, in a sense, truly irrational.

Civilization does not currently have anything to counter Earth impacts; we are relying on doing nothing, just having six billion copies scattered across the globe ("They can't get us all...") Spacewatch gets a few crumbs from the science budgets of several countries, that's about all. Our tolerance for death and destruction has helped us to survive over the ages, making us surprisingly resilient and hardy critters, but a side effect of it is that we have become rather blasé.

In engineering, we try to take care of civilisation and the Earth. However, we might not be able to do anything about this. Humans have considered the threat and dismissed it in the same breath. The mechanism that was used to arrive at that answer, however, is flawed. Civilisation is like one big out-of-control mob; mobs usually do as they please, following the lowest common denominator. Maybe something really big will change the stance of the mob. In other words... it might take a, uh, cosmic catastrophe. ■