Written by George Hrab
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Early humans looked to the sky and invented stories explaining the intricate machinations of gods and monsters, heroes and heroines, warriors and poets. They created myths, stories, and legends to account for the workings of these mysterious, brilliant points of light. A single dot in the heavens could represent the most epic of battles. A pair of stars could somehow contain within them the entire contents of both the Iliad and the Odyssey. This was all possible because early man's free-time allotment did not include the mind-numbing wonders of back episodes of VH-1's "The Flavor of Love."

Stories and explanations were extended and imposed upon everyday occurrences like the rising and setting of the sun, moon phases, tides, weather patterns, and why Thag repeatedly refused to return any flint tools he borrowed. As successful pattern-seeking animals, we unfortunately inherited a side effect of finding patterns in occurrences where no structured systems exist. Luckily, our early progenitors gained far more than they lost by creating these myths and fomenting their superstitions. Seasonal structure was maintained by gazing at the stars and relying on their immutable, dependable permanence.

Yet, these incredible tales describing natural phenomena could never have begun to approach the truth. How could these distant ancestors have imagined that the materials composing their celestial ornamentations were the very same materials composing their everyday terrestrial experience? To think that the elements and atoms at the heart of an unimaginably distant star are identical to the amalgamated parts of our very own selves was beyond the capacity of a primitive mind. In many ways, it still is beyond the capacity of the human mind. To realize that we are literally made of star stuff should inspire more awe and reverence than countless tales of hunters, chariot-riding warriors, fantastic creatures, or snake-coiffed babes.

As modern descendants of these pattern-seeking storytellers, we often forget that we are biologically identical to them. The anatomical composition of their brains and bodies exactly matches ours; it's no wonder that so many of us find it easy to succumb to the effects and pressure of superstition. I propose that every step of our species' cultural advancement has been due to the shedding of this superstitious influence, and that vigilance and effort are required to control the consequence of hundreds of years of evolutionary conditioning.

Arthur C. Clarke once posited that any sufficiently advanced technology is indistinguishable from magic. He also wore Nehru jackets so you know he was telling the truth. Imagine what our distant cousins would think upon seeing the workings of an iPhone, or the internet, or wireless remotes, or television, or a fountain pen, or even a Slinky. To them, these pocket miracles would be just as difficult to comprehend and explain as a solar eclipse or a hurricane, and would therefore be relegated to the vagaries of magic. We however, look at these leaps and strides of technology and become inured to the real sorcery of these implements. It's an ever shrinking gap from the recently inconceivable to the newly mundane.

Lest we forget-

We can actually predict the future.
We know-to within tenths of a second-when the sun will rise and set for the next 10,000 years. We can tell when Halley's Comet and Comet Encke will return, and we know precisely when hundreds of eclipses and celestial events will happen.

We can actually treat disease.
One ingests the tiniest of pills and a variety of ailments and symptoms are treated. The use of X-rays, CAT scans, and MRIs lets us peer into the inner workings of the body and painlessly diagnose and treat ailments. Polio is no longer the unavoidable, crippling disease it once was.

We can actually fly.
Using harnessed principles of air pressure and dynamics, we can soar thousands of feet into the sky while safely and reliably speeding along at hundreds of miles an hour, all while watching a lousy movie.

We can actually communicate across vast distances... instantly.
Telephones, radio, television, cell phones and the internet have completely redefined what communication means. There is no need for telepathy when one has the world's largest wireless network.

We can actually go to the Moon, or Mars, or Saturn, or soar outside our own solar system.
We have walked on the lunar surface, and machines designed by man have broken the very boundaries of our local space.

To many, these inventions and principles quickly become common, and they search for extended substance and meaning in shadow and hazy hyperbole. They place unearned value in the insignificance of coincidence, and ignore the practical miracles that surround us. They

quickly forget that all of these inventions have been made possible by the rejection of superstitious thought.

Ben Franklin said that anger is never without reason, but seldom with a good one. I hope that as we reject superstition we don't search to be angry, but that we channel our anger when our reasons are good. A mature civilization should revel in its own indignation at the deleterious effects of superstition. Growing up is not selling out. It's simple to look at our distant history and question-or even ridicule-the various beliefs of past cultures. How easily we can mock those who prayed to a dog-headed god. How easily (and rightly) we can cringe at the ceremonial brutality of sacrifice. How easily we can look down at the hierarchy of racism, sexism, and ageism entrenched in many of these past cultures. How easily we can look back in shock and amazement at the popularity of flared pants. Conversely, how difficult it is, to point a judgmental finger back at ourselves, and ponder what future generations might think of our particular set of superstitions. What current ideas and concepts of love, race, tolerance, knowledge, and value will eventually embarrass us?

Mark Twain once lamented that the Church has opposed every innovation and discovery from Galileo's time down to his own. I would extend that not only the Church, but dogmatic thought from religious and non-religious magesteria have opposed (however mistakenly and innocently) every significant advancement of humanity. The progress of innovation has often been stymied by the ideology of traditionalism. Variations on superstitious thought have been used to explain and condone the denial of woman's suffrage, the limiting of human rights, and even the trafficking of human chattel...ideas that today are indefensible.

Perhaps it is a testament to the human animal that we as a species can quickly change our expectations of behavioral norms. What at one time could be thought of as mundane can, in mere generations, be viewed as barbaric. BUT- why do we easily forget and excuse the impetus and source of these beliefs? How often do espousers of dogma backtrack, apologize, and try to explain away past indiscretions through historical context? Why not question the maxim itself? It took the Vatican 359 years to admit they were wrong about Galileo. It took science less than 20 years to figure out that Stephen Hawking was wrong about black hole radiation. One of the folks who figured out that Stephen Hawking was wrong? Stephen Hawking. That's why he's being sacrificed inside the Large Hadron Collider for blasphemy.

Despite such a difficult superstitious-laden history, humanity has inched forward, gaining speed, improving its pace with every step. With clear thinking, exposure to centralized sources of knowledge, and access to the principles of science, we're slowly losing the encumbrance of superstition. As the weight is lifted, we marvel at the load we once carried. The rationale for slavery, bigotry, sexism, fear, and countless other beliefs becomes inexcusable under the welcoming glow of science's reasoned illumination.

We've arrived at a time where humanity must mature and grow out of its awkward adolescence; but there is no need to ever lose that childlike sense of wonder and amazement. Knowing how a clock works doesn't make one appreciate the passing of time any less. Learning that the sun is composed of hydrogen and helium doesn't take away from the beauty and majesty of a sunrise. Knowing that a complex system of wires, computers, and micro processors is required to

transport your voice over a satellite-based network could never diminish the impact of hearing that there will indeed be a new Ozzy Osbourne record.

Thomas Jefferson wrote, "Enlighten the people generally, and tyranny and oppressions of body and mind will vanish like evil spirits at the dawn of day." The last century, sometimes quite painfully, has proven his words to be true. Humanity is slowly starting to realize that any society that attempts to impose a structure of disseminated knowledge, with limited exposure to new ideas and concepts, is ultimately fighting an un-winnable battle. Regrettably, it often feels as though the superstitious get all the press. Ironically, the medium which they use to communicate has, from its inception, been reliant upon the precepts of science. The fact that a preacher or mullah can castigate the evils of secularism while using a satellite feed never ceases to amaze.

Why has the past century been such an incredible time of change? It's due to the speed in which unfettered knowledge and reason has advanced. It's due to the quantitative, self-correcting nature of science. It's due to our unrelenting thirst for information. It's due to the ability to store, retrieve, share, and build upon that information. It's due to the seemingly limitless capacity for humans to think and conceive ideas. And yes, these ideas can sometimes bear truths which can be disquieting. It's been said that progress has never been a bargain, but ultimately it has to be seen as worth the price. Knowledge, no matter how uncomfortable, is never so painful as to outweigh ignorance.

The shedding of superstitious thought-ALL superstitious thought-could ultimately be the process that allows the luminescence of the stellar material within us to shine. And perhaps for the first time, both our ancestors and descendants would be equally and unequivocally proud.

(George Hrab is a skeptical multi-instrumentalist, singer, songwriter, producer, composer and heliocentrist. Listen to and learn more about George at geologicrecords.net .)