
Misconceptions regarding Hurricane Harvey

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Many people have asked me to write something about the recent hurricanes that touched both Texas and Florida. I was not in Florida at the time of Irma but I was in Texas during Harvey and kept a daily blog. After the hurricane the media started to blame the great amount of destruction that took place in Texas on climate change. I could not disagree more. I want to emphasize from the outset that I do not want this to turn into a debate over the totality of climate change.

I want, however, to address the politics and misuse of history concerning Hurricane Harvey. I also am a firm believer that when a political viewpoint becomes scientific doctrine then we have a return to a form of “fascist” thought that is both misleading and incorrect. I want to emphasize from the start that I am not a scientist, but then I am not writing this paper from the perspective of science.

Scientists, however, are people and therefore over the last half millennia have also been impacted by the sociological waves that touch their work during the historical period of which they have lived. There is a substantial literature on the history of science and a great deal of sociological literature on how social trends have impacted science. It is from these sources that I present many of my thoughts.

This short essay is restricted only to issues of the last two hurricanes, In reality, I started it before Irma hit Florida and have made some adjustments to update the essay in the post Irma phase

Some basic principles

1) The space separating science from theology is much less wide than most people suspect. Although science is based on “generalizable” observations turned into data, the ultimate academic foundation of all science is “positivism”. Positivism, first conceived of by Auguste Comte, held that data must be empirical and discovered by one of the five senses or their extensions (such as a telescope being an extension of the eye). This leads to the theological issue of: how do we prove positivism by itself. Ironically, Positivism and thus, modern science are ultimately taken as valid as an act of faith.

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2) Because scientists understand this irony they work with what is called the “laws of falsification”. That is we do not prove something, but rather we disprove hypotheses. Thus, there is no such thing as “settled science”. Science is based on the challenging of facts. It is the questioning of the “is” and if it is “settled” (a fascist term) then it is no longer science. The laws of falsification begin with the assumption that we can only prove a negative. We can infer a positive but never prove it. As Karl Popper noted: without the laws of falsification all science comes to an end and we simply fire every scientist.² Unchallenged science is then closer to doctrine than it is to science.

3) Theology tends to be unchallenged knowledge. I know X because I believe it. Theology is not empirical but exists outside of the world of empirical data. Non-empiricism touches such human emotions as love, hate, caring, desire to become altruistic etc. The key to the “theological sciences” (I use the term science here in its original Latin meaning of “knowledge”) is that knowledge does not have to be proven, it only has to be.

4) In highly scientific periods such as ours, humans often tend to blur the empirical with the theological by means of tautologies. Historically highly empirically oriented ages have created large numbers of people who seek the magical over the scientific. Hegel long established this principle in his now classical dialectic. Thus, theses often produce antitheses both in the social world and in the political world. To put that into academic terms, it is not uncommon for there to be a prevailing paradigm, this hypothesis expressed as a *paradigm* (as the physicist Thomas Kuhn noted) becomes science until there are enough anomalies to force questioning of the paradigm. Data classically has been collected in accordance with the prevailing paradigm and those who question that paradigm in magical or fascist oriented ages are often “excommunicated” from the prevailing body politic.

For example in the Middle Ages, the prevailing orthodoxy was Catholicism and the Church declared Jews responsible for everything. That formula used at the time and expressed as a tautology, was simple:

Jews rejected Jesus; Jesus is good ergo Jews are bad thus whatever happens in the world is the fault of the Jews.

² An example of a spurious correlation is that crime tends to rise when more ice cream is consumed. That is a true fact, but the key here is that ice cream is consumed during warm periods when more people are out-of-doors and therefore we see a rise in crime. The fact that crime rises during periods of higher ice cream is then both true and misleading. We need only to ask the question: were we to eat less ice cream would crime plummet? The answer of course is no.

During the Middle Ages Jews were then held to be responsible for everything from lost children to the Black plague from exceptionally cold winters to floods. The Inquisition took this concept even further assuming that magically Jewish blood was responsible for most of Europe's evils. Under Inquisitional law: to question this "known fact" was a form of heresy that could result in either torture or the death penalty. The death penalty was considered to be a cleansing of the soul and therefore the burning of a human being at the stake was defined as "beneficial" for the recipient.

This teleological reasoning was the prevailing viewpoint in Europe until the final explosion: the Holocaust. It was from this "certainty" that the Dreyfus affair rocked France, that eugenics were imported from the United States and that pogroms across Eastern Europe were justified. The result of the prevailing paradigm terminated with the Holocaust and Hitler.

It was only after the horrors of WWII were finally brought to light that there was a sense of "oops, perhaps we were wrong!" It would be another 50 years until the Church finally (sort of) admitted that its teleology was deadly and Christianity had to face the fact that despite whole literatures written to the contrary, Europeans had much about which to be ashamed. Today, even in a post-Holocaust world there are those who hang onto this teleological principle, which is presented in "scientific terms".

During the 1700 years that this prevailing theory held sway one book after another was cited to prove the fact that Jews were responsible for all the bad that happened in the world. The better educated gravitated toward this theory, thus as post Holocaust historians today note the first to support Hitler were the liberal academics and scientists. Unfortunately, as proven both by the Inquisition and by early XX century Germany, education does not necessarily result in critical thinking. Often these are in states of reverse correlations.

Today we need to question if the same "ill-ogic" is not being used but instead of Jews we have a more benign term, called "climate change"? It should be underlines that the lunatic right uses this same ill-ogic in stating that hurricanes are a divine curse placed on society due to gay marriage (or abortion or substitute any other cause or hatred that you like). In all cases, Ron Emmanuel's principle: "never let a good crisis go to waste" is relevant.

Although Ron Emmanuel said it best, politicians have used the same methodology for millennia. The basic formula (often called scapegoating) is: Crisis X is due to Cause Y that is expressed

through the statistical error of spurious correlations. For those who do not know statistics, correlations never proved causality.³

Terminology:

The term *Climate change* is a term that can mean whatever the speaker wants it to mean. In fact, the word is composed of two meaningless words: climate is dependent on the historic time line that we use. If weather is right now, climate can be: this year, this decade, this century, this millennium, or this geologic period. It can cover a year or a billion years. The term is so illusive as to allow the propagandist to use it at will. (Remember that the best propaganda has 10% truth and 90% falsehood presented as fact). For example, we know that life existed in the form of plants at the north and south poles.⁴

Meaning? At some point these poles were a lot warmer than they are today. Geological data would also indicate that Africa and South America were once joined and this means that there were both climatic changes and continental movements. The same may also be true for the land bridge between Siberia and Alaska. There is no reason to believe that we have magically arrived at the end of time and therefore geological and climatic changes are now stagnant. We can use many other examples on both sides of argument, meaning we have politics rather than science.

³ An example of a spurious correlation is that crime tends to rise when more ice cream is consumed. That is a true fact, but the key here is that ice cream is consumed during warm periods when more people are out-of-doors and therefore we see a rise in crime. The fact that crime rises during periods of higher ice cream is then both true and misleading. We need only to ask the question: were we to eat less ice cream would crime plummet? The answer of course is no.

⁴ According to most accepted scientific analyses: about ten million years ago the North Pole was much warmer than it is today. In fact North Pole summers were completely ice/snow free. See April 2016 report of the Alfred Wegener Institute, Helmholtz Centre for Polar and Marine Research
While Popper recognizes that scientists can and do hold onto theories in the face of failed predictions when there are no predicatively superior rivals to turn to. He holds that scientific practice is characterized by its continual effort to test theories against experience and make revisions based on the outcomes of these tests. By contrast, theories that are permanently immunized from falsification by the introduction of untestable ad hoc hypotheses can no longer be classified as scientific. Among other things, Popper argues that his falsificationist proposal allows for a solution of the problem of induction, since inductive reasoning plays no role in his account of theory choice.

The term “change” is even more difficult to define. To be alive is to be in constant change. Only the dead do not change and if we study physics the laws of entropy these laws would argue that even the dead change. The Hebrew definition for God is “borei” (such as in the term borei pri ha’gafen) meaning: “the ability to reverse entropy” points to the fact that the physical world is one of constant change. Weather, (a form of energy) as is all energy, is ever changing, thus we have weather reporters. If weather were static (an impossibility according to the laws of thermodynamics) then we would not need to forecast it.

Change can be subtle or brusque, but change is always consistent. To speak of climate change as a reism is an oxymoron. The opposite of climate change is “climate stagnation”. For climate to cease to change would not only be impossible but also illogical. Thus, the question is not if there is or is not climate change but if the rate of change is faster or slower than geological time. Simply put, short samples are statistical anomalies and magical science and are open to historical data manipulation.

Some basic first considerations:

1) Climates do change. The climate of the earth has been changing since its creation. Substitute the word “weather”. How often does one hear the word “weather change”? Of course the answer is never! The reason is that rational people understand through daily observation that weather constantly changes. In fact one hears more complaints when weather does not change for a longer than expected period than when the weather does change, i.e. a draught, a period of non-stop rain resulting in flooding, multiple blizzards.

2) No matter what one’s opinion there are no rational people, at least whom I know of, would desire: pollution, dirty water, dirty air etc. We are all in agreement that we need to protect the earth and that we ought not to pollute. I lecture around the world on the importance of good ecology and its relationship to crime control. I support 100% re-forestation, cleaning lakes, planting flowers, making sure that rivers are crystal clean etc. The word “climate change”, however, is often (mis)used as a substitute for ecology or “environmental protection”. I would not question the need to protect the environment, especially as change is ubiquitous. Religiously it is our duty to hand the planet off to the next generation in better shape than what we received. This latter statement is an almost universally accepted form of theological-science that is knowledge from a non-empirical source, yet almost universally accepted.

3) No matter what we might want, change is ubiquitous. Nothing in society stays the same. We are not going to depopulate New York, London, Rome, São Paulo, or Buenos Aires. The fact that there are millions of people living in small areas means that we have to learn to adapt in intelligent ways. Certainly there are many things that can and should be done. We must also be

cognizant of the fact that at times when we solve one problem we then cause other problems. Windmills and ethanol gas are examples of good intentioned ideas that did more harm than good. Certainly, we need to have stronger laws than we now have regarding building and zoning codes. We ought to reconsider if we will allow people to build on keys (nice word for sand bars) or in places that are open to sea swells or surges. The same can be said for allowing vast development in flood zones, at least without proper building codes. I do not question that we need ecologically friendly zoning laws. On the other we do adapt. Holland is an example of humans learning to live with nature, as is the sea-airport in Hong Kong. Here humans have found ways to innovate creatively, and thus allow society to live at least potential in harmony with nature.

In the case of both Irma and Harvey much of the damage is due to human stupidity, poor risk management, and the fact that governments allowed construction on sites that were not adequate for that type of construction.

4) Concerning Hurricane Harvey we very much know the reasons for the terrible damage. We only have to look at the city's geography. The areas most hurt were those built along the "bayous" where water had no place to flow.

The hurricane hit at a time when there were almost no evacuation routes. All the major highways are under construction, or undergoing repaving, or other necessary improvements. The bottom line: the evacuation of millions of people would have caused massive deaths. Irma was another story. Just as in Texas, the governor of Florida did a spectacular job, but no governor can change geography and Florida is a narrow peninsula with millions of people. If we close the state's two major highways and the airports then Florida becomes a giant cul-de-sac.

Returning to Harvey, the hurricane came in-between two major high-pressure systems. It was trapped and therefore as any climate scientist will tell you, it had nowhere to go and so it fed on itself. Harvey then was unique as the norm for hurricanes is: enter, damage, and then move on. In the case of Harvey there was a cybernetic feedback loop causing massive amounts of rain, on land that was unable to absorb water, thus unusual flooding occurred.

We had a perfect storm. The problem is, as in the Middle Ages, once we have a theory sold to the public, it becomes like the storm itself: self-serving. So we had 12 quiet years, and we then declared this lack of hurricanes due to "climate change". Then we have a period of two major hurricanes and again we have climate change.

Ironically, Irma, made landfall on September 10th, that date is exactly at the high point of every hurricane season. Its strength, as terrible as it was, paralleled other hurricanes that occurred over a century ago. In fact, in terms of power it is ranked number 7. The difference lies in the fact that we choose to ignore natural warnings by building too close to the coast in low-lying areas and in

overpopulating areas that simply cannot handle that number of people without better risk management.

So the analysis pattern is an almost exact replica of the academic thinking used in the Middle Ages. When we add the fact that to question is to be evil, the basic premise of the Spanish and Portuguese Inquisitions, then we have a true return to the Middle Ages⁵.

There is the additional problem that Western Education is based on the concept of specialization. In sociology we call this division of knowledge: “high cultural knowledge” versus “low culture knowledge”.⁶ In a complex society such as ours, we need specialists. Because a person is highly trained, however, in X does not mean that s/he knows much about Y. In fact most of our “educated” people are highly restricted in what they know. The advantage from a political perspective is that it is extremely easy to manipulate a highly educated society. In fact, if we study Nazi Germany we find that people educated in both the hard and medical sciences often were the least conscious of the political reality in which they lived and the most open to the tools of the propagandist.

This educational bifurcation occurs in the US and Europe, where lots of highly intelligent people know little about subjects not their own. The results of this bifurcated educational system are millions of “smart-ignorant” people who are prone to magical thinking in areas that are not their specialization. Just look at any of the ads on TV. We have all sorts of supposed supplements sold to the public so promising numerous near magical cures. How different are these ads from the 19th century “snake oil”, also sold to smart people? The comparison of similarities is shocking. We laugh at 19th century man not realizing the 21st century man is no different and often just as open to miracle thinking.

Issues of Methodology

Unfortunately most people, and too few academics, really have a good grounding in methodologies outside of their narrow expertise. Here are a few examples:

⁵ Currently Canada is considering a law making it illegal to question climate change, an exact parallel to both “Soviet Science” and to Inquisitional “science”.

⁶ The author is well aware that he is not a scientist and has written this paper not from the perspective of high cultural science but from the perspective of social science. He is well aware of the lacunae in his own knowledge bank.

1) One cannot prove X by X. This is a basic rule of analysis. If you seek specific data to prove a theory you have committed a basic teleological error. Such errors are not only wrong but also dangerous. For example, I am often asked in economic viability studies to find the data that supports the viability of X hotel. When I explain to people that you first collect the data and then from the data decide if the hotel is viable or not, they get angry. The same error has historically occurred in many of the scientific fields due to the fact that funding is often determined by desired outcomes.

2) An example is never a proof. An example is an N of one. If we see patterns of hurricanes over long periods of time that break the mold then we can create a statistical hypothesis. To take one example and try to use it as a proof-text is methodologically false, and it spills over into magical thinking.

3) You cannot compare x to y if they are not similar. This is another way of saying apples to oranges. The comparisons must be valid and generalizable, if not we have just words.

4) We can prove anything by data manipulation. In the case of Harvey, it depends on my chosen “initium” (historical starting point) and then the chosen “finem punctum” (point where we end our analysis). Where we choose these two points determines to a great extent any conclusions. Are we speaking about hurricanes that have hit anywhere or only the Gulf coastline? Does our hypothesis refer to the last 10 years, 50 years, 100 years or 1,000,000 years? Historians are well aware that one of the weaknesses of using history, as a science is that history has arbitrary starting and end points. Change the points and the answer also changes.⁷

5) The error of particular to the general. As every Talmudist (or social scientist should) know it is dangerous to go from the “particular” to the “general”. We can go at times from the general to the particular, but never in reverse. In the case of hurricane Harvey, and that is the point of this article, the Gulf coast has several particular issues. Among these are the layout of the land, normal summer heat, the direction of river flows, and the fact that it is highly hurricane prone. Hurricanes and the destruction that they have brought have been a part of this region of the world for at least 20,000,000 years and some argue that weather related issues have shaped the entire geography of this region since the end of the dinosaurs. (Of course, birds are biologically part of

7 In reviewing hurricanes it appears that there are several methodologies in determining how deadly a hurricane may be, these include deaths, economic destruction, wind strength at time of land fall, etc. Here is a very partial list of some of the deadliest hurricanes with their year placed immediately afterward. Great Galveston (1900) Lake Okeechobee (1928), Chenier Caminada (1893) , Sea Islands (1893) , Ga?SC (1891). Few measurements were kept prior to 1850, and some of the measurements are dependent on population densities. Thus, hurricanes that hit FL in the 1920's would do a great deal more damage today, not because they are stronger but because there are more people living in the hurricane's path. The point is that stating that X has occurred in the last five or ten years is not a reasonable statistical measurement tool.

the dinosaur family so it can be debated when or if the era actually ended). In the case of Florida, a place that is barely above sea level, we have other unique problems. To combine the two is to create methodological errors. We can debate if there should be millions of people living there. That is a risk management issue, but we cannot turn a risk management issue into a meteorological issue.

5) One should never look at a single variable. Yale University studies of hurricanes remind us that their intensity is not “single-issued”. Hurricane strength is dependent on a basket of causes including: sea currents, sea surface temperatures but as is so often the case in science there are confounding factors, thus as Dr. Kerry Emanuel noted in the scientific journal *Nature*; “And natural feedbacks — hurricanes, for example, churn deeper, colder water to the surface, lowering sea surface temperatures — complicate the science of forecasting future hurricane trends.” What Kerry does note is that while hurricane strength is not predicable, “One thing, however, is certain, says Emanuel: Government policies encouraging people to live in vulnerable, low-lying coastal zones — think South Florida — are folly. State and federal subsidies and bailouts of coastal home and business owners essentially mean that people living in less exposed inland areas are paying for the risk taking of coastal residents, who are frequently well-off. “We have the situation of hard-working people in factory jobs and farmers subsidizing the landowners of Palm Beach,” said Emanuel. “That’s crazy.”” The bottom line is that when a single reason is given for climatic patterns we have most likely left the realm of science and entered into the world of politics.

6) Science is not a popularity contest. It is possible that the majority of the population may be wrong. For example, in pre- Columbus days most people, including scientists, accepted the notion that the world was flat. We should be mindful that generations from now scientists might well laugh at our primitive findings. Science is not only determined by data but also by the zeitgeist in which the scientist works. As any doctor can tell you, we often are prone to see things (or not see things) for reasons other than pure science.

Other issues

1) The French social commentator Jean Baudrillard would ask us to question: who is making money from all this?

There are multiple answers to his question. The fact that the liberal media changed its mind about climate change as being caused by individuals ought to be a clue that something is wrong. When the wealthy were asked to change their life-style we were then told that these “changes” are now caused by governments but not by individuals. This new guilt ought to give academics

cause for creative pondering. The fact that all sorts of businesses have used the term climate change not only as a way to make money but also to fool the public ought to create serious questions in any person's mind. (Go into any men's room and see the insane hand-drying machines. They use much more energy than renewable paper (cut from fast growing popular trees). These machines spread germs and waste energy but are sold to the public as a way to prevent global warming.

If my theory holds true than it would be one more time that people are asked to fund their own impoverishment. That is exactly the same technique that Stalin used so successfully. Lenin called such people "useful idiots".

2) The Bible speaks to us of Migdal Bavel, the Tower of Babel. In the tale, it speaks of how humans would reshape the world, and become like gods. Of course, they failed. Today we have a new Babel; it is a series of contradictory theories in which the individual's liberty is to be subsumed by the state for the greater good. Again, what may or may not cause the ebbs and flows of climate over the centuries is open to debate, but the fact that we are told that only one side has "settled" science means that science now acts as the servant of political interests rather than as a seeker of truth.

Just as at Babel, in the Inquisition, or in Hitler's Europe, whenever ideology overtakes academic analysis and those who disagree are called "heretics" so that they too may be silenced and hard questions cease to be asked, we need to worry, less about the climate we call weather but perhaps more about the climate we call politics.