The Murray Gell-Mann Amnesia effect

Media carries with it a credibility that is totally undeserved. You have all experienced this, in what I call the Murray Gell-Mann Amnesia effect. (I refer to it by this name because I once discussed it with Murray Gell-Mann, and by dropping a famous name I imply greater importance to myself, and to the effect, than it would otherwise have.)

Briefly stated, the Gell-Mann Amnesia effect is as follows. You open the newspaper to an article on some subject you know well. In Murray's case, physics. In mine, show business. You read the article and see the journalist has absolutely no understanding of either the facts or the issues. Often, the article is so wrong it actually presents the story backward -- reversing cause and effect. I call these the "wet streets cause rain" stories. Paper's full of them.

In any case, you read with exasperation or amusement the multiple errors in a story, and then turn the page to national or international affairs, and read as if the rest of the newspaper was somehow more accurate about Palestine than the baloney you just read. You turn the page, and forget what you know.

That is the Gell-Mann Amnesia effect. I'd point out it does not operate in other arenas of life. In ordinary life, if somebody consistently exaggerates or lies to you, you soon discount everything they say. In court, there is the legal doctrine of falsus in uno, falsus in omnibus, which means untruthful in one part, untruthful in all. But when it comes to the media, we believe against evidence that it is probably worth our time to read other parts of the paper. When, in fact, it almost certainly isn't. The only possible explanation for our behavior is amnesia.

The above is an excerpt from the following full text (copied from http://geer.tinho.net/crichton.why.speculate.txt)

WHY SPECULATE?

A talk by Michael Crichton (R.I.P., 2008) International Leadership Forum, La Jolla 26 April 2002

```
There are two times in a man's life when he should not
speculate: when he can't afford it and when he can.
-- Mark Twain
```

My topic for today is the prevalence of speculation in media. What does it mean? Why has it become so ubiquitous? Should we do something about it? If so, what? And why? Should we care at all? Isn't speculation valuable? Isn't it natural? And so on.

I will join this speculative trend and speculate about why there is so much speculation. In keeping with the trend, I will try to express my views without any factual support, simply providing you with a series of bald assertions.

This is not my natural style, and it's going to be a challenge for me, but I will do my best. Some of you may see that I have written out my talk, which is already a contradiction of principle. To keep within the spirit of our time, it should really be off the top of my head.

Before we begin, I'd like to clarify a definition. By the media I mean movies, television, Internet, books, newspapers and magazines. Again, in keeping with the general trend of speculation, let's not make too many fine distinctions.

First we might begin by asking, to what degree has the media turned to pure speculation? Someone could do a study of this and present facts, but nobody has. I certainly won't. There's no reason to bother. The requirement that you demonstrate a factual basis for your claim vanished long ago. It went out with the universal praise for Susan Faludi's book Backlash, which won the National Book Critics Circle Award for General Nonfiction in 1991, and which presented hundreds of pages of quasi-statistical assertions based on a premise that was never demonstrated and that was almost certainly false.

But that's old news. I merely refer to it now to set standards.

Today, of course everybody knows that "Hardball," "Rivera Live" and similar shows are nothing but a steady stream of guesses about the future. The Sunday morning talk shows are pure speculation. They have to be. Everybody knows there's no news on Sunday.

But television is entertainment. Let's look at the so-called serious media. For example, here is The New York Times for March 6, the day Dick Farson told me I was giving this talk. The column one story for that day concerns Bush's tariffs on imported steel. Now we read: Mr. Bush's action "is likely to send the price of steel up sharply, perhaps as much as ten percent..." American consumers "will ultimately bear" higher prices. America's allies "would almost certainly challenge" the decision. Their legal case "could take years to litigate in Geneva, is likely to hinge" on thus and such.

Also note the vague and hidden speculation. The Allies' challenge would be "setting the stage for a major trade fight with many of the same countries Mr. Bush is trying to hold together in the fractious coalition against terrorism." In other words, the story speculates that tariffs may rebound against the fight against terrorism.

By now, under the Faludi Standard I have firmly established that media are hopelessly riddled with speculation, and we can go on to consider its ramifications.

You may read this tariff story and think, what's the big deal? The story's not bad. Isn't it reasonable to talk about effects of current events in this way? I answer, absolutely not. Such speculation is a complete waste of time. It's useless. It's bullshit on the front page of the Times.

The reason why it is useless, of course, is that nobody knows what the future holds.

Do we all agree that nobody knows what the future holds? Or do I have to prove it to you? I ask this because there are some well-studied media effects which suggest that simply appearing in media provides credibility. There was a well-known series of excellent studies by Stanford researchers that have shown, for example, that children take media literally. If you show them a bag of popcorn on a television set and ask them what will happen if you turn the TV upside down, the children say the popcorn will fall out of the bag. This result would be amusing if it were confined to children. But the studies show that no one is exempt. All human beings are subject to this media effect, including those of us who think we are self-aware and hip and knowledgeable.

Media carries with it a credibility that is totally undeserved. You have all experienced this, in what I call the Murray Gell-Mann Amnesia effect. (I refer to it by this name because I once discussed it with Murray Gell-Mann, and by dropping a famous name I imply greater importance to myself, and to the effect, than it would otherwise have.)

Briefly stated, the Gell-Mann Amnesia effect is as follows. You open the newspaper to an article on some subject you know well. In Murray's case, physics. In mine, show business. You read the article and see the journalist has absolutely no understanding of either the facts or the issues. Often, the article is so wrong it actually presents the story backward -- reversing cause and effect. I call these the "wet streets cause rain" stories. Paper's full of them.

In any case, you read with exasperation or amusement the multiple errors in a story, and then turn the page to national or international affairs, and read as if the rest of the newspaper was somehow more accurate about Palestine than the baloney you just read. You turn the page, and forget what you know.

That is the Gell-Mann Amnesia effect. I'd point out it does not operate in other arenas of life. In ordinary life, if somebody consistently exaggerates or lies to you, you soon discount everything they say. In court, there is the legal doctrine of falsus in uno, falsus in omnibus, which means untruthful in one part, untruthful in all. But when it comes to the media, we believe against evidence that it is probably worth our time to read other parts of the paper. When, in fact, it almost certainly isn't. The only possible explanation for our behavior is amnesia.

So one problem with speculation is that it piggybacks on the Gell-Mann effect of unwarranted credibility, making the speculation look more useful than it is.

Another issue concerns the sheer volume of speculation. Sheer volume comes to imply a value which is specious. I call this the There-Must-Be-A-Pony effect, from the old joke in which a kid comes down Christmas morning, finds the room filled with horseshit, and claps his hands with delight. His astonished parents ask: why are you so happy? He says, with this much horseshit, there must be a pony.

Because we are confronted by speculation at every turn, in print, on video, on the net, in conversation, we may eventually conclude that it must have value. But it doesn't. Because no matter how many people are speculating, no matter how familiar their faces, how good their makeup and how well they are lit, no matter how many weeks they appear before us in person or in columns, it remains true that none of them knows what the future holds.

Some people secretly believe that the future can be known. They imagine two groups of people that can know the future, and therefore should be listened to. The first is pundits. Since they expound on the future all the time, they must know what they are talking about. Do they? "Brill's Content" used to track the pundit's guesses, and while one or another had an occasional winning streak, over the long haul they did no better than chance. This is what you would expect. Because nobody knows the future.

I want to mention in passing that punditry has undergone a subtle change over the years. In the old days, commentators such as Eric Sevareid spent most of their time putting events in a context, giving a point of view about what had already happened. Telling what they thought was important or irrelevant in the events that had already taken place. This is of course a legitimate function of expertise in every area of human knowledge.

But over the years the punditic thrust has shifted away from discussing what has happened, to discussing what may happen. And here the pundits have no benefit of expertise at all. Worse, they may, like the Sunday politicians, attempt to advance one or another agenda by predicting its imminent arrival or demise. This is politicking, not predicting.

The second group that some people imagine may know the future are specialists of various kinds. They don't, either. As a limiting case, I remind you there is a new kind of specialist occupation -- I refuse to call it a discipline, or a field of study -- called futurism. The notion here is that there is a way to study trends and know what the future holds. That would indeed be valuable, if it were possible. But it isn't possible. Futurists don't know any more about the future than you or I. Read their magazines from a couple of years ago and you'll see an endless parade of error.

Expertise is no shield against failure to see ahead. That's why it was Thomas Watson, head of IBM, who predicted the world only needed 4 or 5 computers. That is about as wrong a prediction as it is possible to make, by a man who had every reason to be informed about what he was talking about. Not only did he fail to anticipate a trend, or a technology, he failed to understand the myriad uses to which a general purpose machine might be put. Similarly, Paul Erlich, a brilliant academic who has devoted his entire life to ecological issues, has been wrong in nearly all his major predictions.

He was wrong about diminishing resources, he was wrong about the population explosion, and he was wrong that we would lose 50% of all species by the year 2000. He devoted his life to intensely felt issues, yet he has been spectacularly wrong.

All right, you may say, you'll accept that the future can't be known, in the way I am talking. But what about more immediate matters, such as the effects of pending legislation? Surely it is important to talk about what will happen if certain legislation passes. Well, no, it isn't. Nobody knows what is going to happen when the legislation passes. I give you two examples, one from the left and one from the right.

The first is the Clinton welfare reform, harshly criticized by his own left wing for caving in to the Republican agenda. The left's predictions were for vast human suffering, shivering cold, child abuse, terrible outcomes. What happened? None of these things. Child abuse declined. In fact, as government reforms go, its been a success; but Mother Jones still predicts dire effects just ahead.

This failure to predict the effects of a program was mirrored by the hysterical cries from the Republican right over raising the minimum wage. Chaos and dark days would surely follow as businesses closed their doors and the country was plunged into needless recession. But what was the actual effect? Basically, nothing. Who discusses it now? Nobody. What will happen if there is an attempt to raise the minimum wage again? The same dire predictions all over again. Have we learned anything? No.

But my point is, for pending legislation as with everything else, nobody knows the future.

The same thing is true concerning the effect of elections and appointments. What will be the effect of electing a certain president, or a supreme court justice? Nobody knows. Some of you are old enough to remember Art Buchwald's famous column from the days of the Johnson Administration. Buchwald wrote a "Thank God we don't have Barry Goldwater" essay, recalling how everyone feared Goldwater would get us into a major war. So we elected Johnson, who promptly committed 200,000 troops to Vietnam. That's what happens when you choose the dove-ish candidate. You get a war. Or, you elect the intellectually brilliant Jimmy Carter, and watch as he ends up personally deciding who gets to use the White House tennis courts. Or you elect Richard Nixon because he can pull the plug on Vietnam, and he continues to fight for years. And then opens China.

Similarly, the history of the Supreme Court appointments is a litany of error in predicting how justices will vote once on the court. They don't all surprise us, but a lot of them do.

So, in terms of imminent events, can we predict anything at all? No. You need only look at what was said days before the Berlin Wall came down, to see nobody can predict even a few hours ahead. People said all sorts of silly things about the Communist empire just hours before its collapse. I can't quote them, because that would mean I had looked them up and had facts at hand, and I have promised you not to do that. But take my word for it, you can find silly statements 24 hours in advance.

NOBODY KNOWS THE FUTURE.

Now, this is not new information. It was Mark Twain who said, "I've seen a heap of trouble in my life, and most of it never came to pass."

And much of what politicians say is not so much a prediction as an attempt to make it come true. It's argument disguised as analysis. But it doesn't really persuade anybody. Because most people can see through it.

If speculation is worthless, why is there so much of it? Is it because people want it? I don't think so. I myself speculate that media has turned to speculation for media's own reasons. So now let's consider the advantages of speculation from a media standpoint.

1. It's incredibly cheap. Talk is cheap. And speculation shows are the cheapest thing you can put on television, They're almost as cheap as running a test pattern. Speculation requires no research, no big staff. Minimal set. Just get the talking host, book the talking guests -- of which there is no shortage -- and you're done! Instant show. No reporters in different cities around the world, no film crews on location. No deadlines, no footage to edit, no editors...nothing! Just talk. Cheap.

2. You can't lose. Even though the speculation is correct only by chance, which means you are wrong at least 50% of the time, nobody remembers and therefore nobody cares. You are never accountable. The audience does not remember yesterday, let alone last week, or last month. Media exists in the eternal now, this minute, this crisis, this talking head, this column, this speculation.

One of the clearest proofs of this is the Currents of Death controversy. It originated with the New Yorker, which has been a gushing fountainhead of erroneous scientific speculation for fifty years. But my point is this: many of the people who ten years ago were frantic to measure dangerous electromagnetic radiation in their houses now spend thousands of dollars buying magnets to attach to their wrists and ankles, because of the putative healthful effects of magnetic fields. These people don't remember these are the same magnetic fields they formerly wanted to avoid. And since they don't remember, as a speculator on media, you can't lose.

Let me expand on this idea that you can't lose. It's not confined to the media. Most areas of intellectual life have discovered the virtues of speculation, and have embraced them wildly. In academia, speculation is usually dignified as theory. It's fascinating that even though the intellectual stance of the pomo deconstructionist era is against theory, particularly overarching theory, in reality what every academic wants to express is theory.

This is in part aping science, but it's also an escape hatch. Your close textual reading of Jane Austen could well be found wrong, and could be shown to be wrong by a more knowledgeable antagonist. But your theory of radical feminization and authoritarian revolt in the work of Jane Austen is untouchable. Your view of the origins of the First World War could be debated by other authorities more meticulous than you. But your New Historicist essay, which might include your own fantasy about what it would be like if you were a soldier during the first war... well, that's just unarguable.

A wonderful area for speculative academic work is the unknowable. These days religious subjects are in disfavor, but there are still plenty of good topics. The nature of consciousness, the workings of the brain, the origin of aggression, the origin of language, the origin of life on earth, SETI and life on other worlds... this is all great stuff. Wonderful stuff. You can argue it interminably. But it can't be contradicted, because nobody knows the answer to any of these topics -- and probably, nobody ever will.

But that's not the only strategy one can employ. Because the media-educated public ignores and forgets past claims, these days even authors who present hard data are undamaged when the data is proven wrong. One of the most consistently wrong thinkers of recent years, Carol Gilligan of Harvard, once MS Magazine's Scientist of the Year, has had to retract (or modify) much of what she has ever written. Yet her reputation as a profound thinker and important investigator continues undiminished. You don't have to be right, any more. Nobody remembers.

Then there is the speculative work of anthropologists like Helen Fisher, who claim to tell us about the origins of love or of infidelity or cooperation by reference to other societies, animal behavior, and the fossil record. How can she be wrong? It's untestable, unprovable, just so stories.

And lest anyone imagine things are different in the hard sciences, consider string theory, for nearly twenty years now the dominant physical theory. More than one generation of physicists has labored over string theory. But -- if I understand it correctly, and I may not -- string theory cannot be tested or proven or disproven. Although some physicists are distressed by the argument that an untestable theory is nevertheless scientific, who is going to object, really? Face it, an untestable theory is ideal! Your career is secure!

In short, the understanding that so long as you speculate, you can't lose is widespread. And it is perfect for the information age, which promises a cornucopia of knowledge, but delivers a cornucopia of snake oil.

Now, nowhere is it written that the media need be accurate, or useful. They haven't been for most or recorded history. So, now they're speculating... so what? What is wrong with it?

1. Tendency to excess. The fact that it's only talk makes drama and spectacle unlikely -- unless the talk becomes heated and excessive. So it becomes excessive. Not every show features the Crossfire-style food fight, but it is a tendency on all shows.

2. "Crisisization" of everything possible. Most speculation is not compelling because most events are not compelling--Gosh, I wonder what will happen to the German Mark? Are they going to get their labor problems under control? This promotes the well-known media need for a crisis. Crisis in the German mark! Uh-oh! Look out! Crises unite the country, draw viewers in large numbers, and give something to speculate about. Without a crisis, the talk soon degenerates into debate about whether the refs should have used instant replay on that last football game. So there is a tendency to hype urgency and importance and be-there-now when such reactions are really not appropriate. Witness the interminable scroll at the bottom of the screen about the Queen Mother's funeral. Whatever the Queen mother's story may be, it is not a crisis. I even watched a scroll of my own divorce roll by for a couple of days on CNN. It's sort of flattering, even though they got it wrong. But my divorce is surely not vital breaking news.

3. Superficiality as a norm. Gotta go fast. Hit the high points. Speculation adds to the superficiality. That's it, don't you think?

4. Endless presentation of uncertainty and conflict may interfere with resolution of issues. There is some evidence that the television food fights not only don't represent the views of most people -- who are not so polarized -- but they may tend to make resolution of actual disputes more difficult in the real world. At the very least, these food fights obscure the recognition that disputes are resolved every

day. Compromise is much easier from relatively central positions than it is from extreme and hostile, conflicting positions: Greenpeace Spikers vs the Logging Industry.

5. The interminable chains of speculation paves the way to litigation about breast implants, hysteria over Y2K and global warming, articles in The New Yorker about currents of death, and a variety of other results that are not, by any thoughtful view, good things to happen. There comes to be a perception -- convenient to the media -- that nothing is, in the end, knowable for sure. When in fact, that's not true.

Let me point to a demonstrable bad effect of the assumption that nothing is really knowable. Whole word reading was introduced by the education schools of the country without, to my knowledge, any testing of the efficacy of the new method. It was simply put in place. Generations of teachers were indoctrinated in its methods. As a result, the US has one of the highest illiteracy rates in the industrialized world. The assumption that nothing can be known with certainty does have terrible consequences.

As GK Chesterton said (in a somewhat different context), "If you believe in nothing you'll believe in anything." That's what we see today. People believe in anything.

But just in terms of the general emotional tenor of life, I often think people are nervous, jittery in this media climate of what if, what if, maybe, perhaps, could be -- when there is simply no reason to feel nervous. Like a bearded nut in robes on the sidewalk proclaiming the end of the world is near, the media is just doing what makes it feel good, not reporting hard facts. We need to start seeing the media as a bearded nut on the sidewalk, shouting out false fears. It's not sensible to listen to it.

We need to start remembering that everybody who said that Y2K wasn't a real problem was either shouted down, or kept off the air. The same thing is true now of issues like species extinction and global warming. You never hear anyone say it's not a crisis. I won't go into it, because it might lead to the use of facts, but I'll just mention two reports I speculate you haven't heard about. The first is the report in Science magazine January 18 2001 (Oops! a fact) that contrary to prior studies, the Antarctic ice pack is increasing, not decreasing, and that this increase means we are finally seeing an end to the shrinking of the pack that has been going on for thousands of years, ever since the Holocene era. I don't know which is more surprising, the statement that it's increasing, or the statement that its shrinkage has preceded global warming by thousands of years.

The second study is a National Academy of Sciences report on the economic effects to the US economy of the last El Nino warming event of 1997. That warming produced a net benefit of 15 billion dollars to the economy. That's taking into account 1.5 billion loss in California from rain, which was offset by decreased fuel bills for a milder winter, and a longer growing season. Net result 15 billion in increased productivity.

The other thing I will mention to you is that during the last 100 years, while the average temperature on the globe has increased just .3 C, the magnetic field of the earth declined by 10%. This is a much larger effect than global warming and potentially far more serious to life on this planet. Our magnetic field is what keeps the atmosphere in place. It is what deflects lethal radiation from space. A reduction of the earth's magnetic field by ten percent is extremely worrisome.

But who is worried? Nobody. Who is raising a call to action? Nobody. Why not? Because there is nothing to be done. How this may relate to global warming I leave for you to speculate on your own time.

Personally, I think we need to start turning away from media, and the data shows that we are, at least from television news. I find that whenever I lack exposure to media I am much happier, and my life feels fresher.

In closing, I'd remind you that while there are some things we cannot know for sure, there are many things that can be resolved, and indeed are resolved. Not by speculation, however. By careful investigation, by rigorous statistical analysis. Since we're awash in this contemporary ocean of speculation, we forget that things can be known with certainty, and that we need not live in a fearful world of interminable unsupported opinion. But the gulf that separates hard fact from speculation is by now so unfamiliar that most people can't comprehend it. I can perhaps make it clear by this story:

On a plane to Europe, I am seated next to a guy who is very unhappy. Turns out he is a doctor who has been engaged in a two-year double blind study of drug efficacy for the FDA, and it may be tossed out the window. Now a double-blind study means there are four separate research teams, each having no contact with any other team -- preferably, they're at different universities, in different parts of the country. The first team defines the study and makes up the medications, the real meds and the controls. The second team administers the medications to the patients. The third team comes in at the end and independently assesses the effect of the medications on each patient. The fourth team takes the data and does a statistical analysis. The cost of this kind of study, as you might imagine, is millions of dollars. And the teams must never meet.

My guy is unhappy because months after the study is over, he in the waiting room of Frankfurt airport and he strikes up a conversation with another man in the lounge, and they discover -- to their horror -- that they are both involved in the study. My guy was on the team that administered the meds. The other guy is on the team doing the statistics. There isn't any reason why one should influence the other at this late date, but nevertheless the protocol requires that team members never meet. So now my guy is waiting to hear if the FDA will throw out the entire study, because of this chance meeting in Frankfurt airport.

Those are the lengths you have to go to if you want to be certain that your information is correct. But when I tell people this story, they just stare at me incomprehendingly. They find it absurd. They don't think it's necessary to do all that. They think it's overkill. They live in the world of MSNBC and The New York Times. And they've forgotten what real, reliable information is, and the lengths you have to go to get it. It's so much harder than just speculating.

And on that point, I have to agree with them.

Thank you very much.

---

once at following but that is now a dead link http://www.thegreatideas.org/aww/TGIO332.pdf THE GREAT IDEAS ONLINE, July 2005, No. 332

this copy mirrored from http://larvatus.com/michael-crichton-why-speculate/ retrieved 28 June 2015