



Coronavirus – Follow The Science

We often hear someone say *follow the science* when talking about the current Coronavirus Pandemic. They often use that phrase to end discussions about how people should respond to the pandemic. However, I think we need to ask an important question when someone says that. What does that phrase mean? What does it mean to *follow the science*?

I am a retired journalist and news manager writing to current journalists and news managers in the hopes we will all do a better job reporting about the Coronavirus Pandemic and other stories of local and national interest. I also hope the larger public audience will find these presentations helpful since it is for the citizens of this great nation that journalists cover and report what they deem newsworthy. May their coverage be [accurate and objective](#).

Science Defined

First question we should ask is for a definition of the word *science*, since that's what people want us to follow. The shortest definition is *knowledge*. Merriam-Webster defines science this way – “knowledge as distinguished from ignorance or misunderstanding.”

Our word *science* comes from the Latin *scientia* and means “knowledge based on demonstrable and reproducible data.” Notice the words *demonstrable* and *reproducible*. How is knowledge demonstrable and reproducible? Can knowledge do that by itself? Of course not. It's done by people. Those people are often referred to as *scientists*.

Turning again to the Merriam-Webster Dictionary, a scientist is “a person who studies, specializes in, or investigates a field of science and does scientific work.” A scientist is someone who does scientific work in a particular category of science. Scientists are the people who research, study and investigate things and tell us what they think.

The Encyclopedia Britannica defines science as – “any system of knowledge that is concerned with the physical world and its phenomena and that entails unbiased observations and systematic experimentation.” How can knowledge be concerned about anything? It's just knowledge. Knowledge doesn't have eyes and ears, hands and feet. Scientists are the people who are concerned with the physical world and its phenomena and observe and experiment systematically. Scientists have the eyes, ears, hands and feet. They determine what to research and

how to share their findings with the public and the people who employ them.

When people say *follow the science*, what they often mean is *follow the scientists* they trust. If you don't trust the scientists we trust, then you are not following science. That's sad but true in our country today and has been for a long time. However, that's not how scientific investigation should work.

What we need to note carefully is the word *unbiased*. That goes in some part to why we are dealing with so much conflicting information about the novel Coronavirus (COVID-19). If science is knowledge and knowledge is what's true, then why the conflict? It would seem that those people entrusted with researching, studying, evaluating and reporting scientific data might be a reason for conflicting information. Why would well-educated, highly-trained scientists view the same data differently? Might it be that scientific research is complicated with multiple ways to interpret similar data? Might it be personal, corporate or even political bias on the part of researchers?

Journalists and Scientists

Journalists are not scientists, at least not most of them. Some scientists appear on television or other media in an expert role and there are some scientists who call themselves journalists. However, let me point out that people who want to become journalists or scientists usually take different educational and professional paths. I think that's a good thing overall – as long as the two don't get confused about who they are and what they do for a living. The lines tend to get blurred in modern media, so it's good to understand the differences.

I covered hundreds of stories as a journalist where scientific research and data were an integral part of the story, but never saw myself as the *expert*. My job as a journalist was to be curious, skeptical, objective and accurate in covering stories. Truth was my only goal. That's why I built a large file of experts in many scientific fields to contact for help in understanding scientific information. I contacted some for background information and understanding and others for on-camera interviews. Some worked for the government, some for universities and research laboratories, and some in private industry. It was important to me that in reporting a story viewers, listeners or readers could see the objectivity of the reporting in the variety of experts presented and depend on the information I shared in the story.

Your expert file as a journalist should be large enough to ensure that you are hearing from many different perspectives about a story. If journalists limit their file of experts to just those with whom they agree, then their stories will lack depth, clarity, and most importantly, objectivity, accuracy and the full measure of truth. Those experts can be both local, regional and national. Interviewing regional and national experts has become easier for local journalists today with the advent of Skype, Zoom and other online communication tools.

Journalists and scientists each play important roles in our national life. I do find it interesting that the founders of the United States thought it important to amend its new Constitution to read –

Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for a redress of grievances.”

BILL OF RIGHTS, 1791

The founders said nothing about science specifically, but they viewed freedom of the press as vital to the success of the newly formed country. I'm not downplaying the importance of what scientists say since freedom of speech would cover their comments, but the press (news media) was called out specifically because of the importance of what journalists do in a free society.

Science Deniers

Are you a science denier? Well, are you?

You may hear people ask that question in personal conversations or in news conferences or reports. The question is often followed by a truth claim that a person or group of people are *science deniers*.

The reason some people ask the question or make the claim is because they have a particular belief about *science* and anyone who disagrees with their belief is *denying* science. They may also have a particular agenda or narrative to protect and they only accept the scientific information that supports their particular cause. Is that position scientific or philosophical?

I believe it's often philosophical. Their reason for asking the question or making the statement about science denial is to shut down discussion on a particular topic. That has little to do with real science and everything to do with philosophy. Shutting down discussion is in opposition to the free exchange of ideas and information.

As we've already established in this article, science is knowledge which is ever growing and often shifting depending on research and interpretation of the most recent data. Scientists who believe deeply about a subject one day may have to change their beliefs another day because of new information, new discoveries, new data. That's the life of being a scientist. New data may lead to new conclusions, many of which

will be only temporary until more data becomes available. Journalists need to understand that and be ready to continually update stories based on advances in scientific research.

During the time I worked on this article many health agencies changed their positions on several medical/scientific subjects. Some scientists are also questioning the accuracy of original epidemiological models for COVID-19 that guided the decisions for national, state and community lockdowns and influenced much of the policymaking by federal, state and local government leaders. What should the media do when that happens?

The news media, in general, has downplayed changing positions of leading health experts who were part of the government's initial decisions concerning community lockdowns, stay-at-home orders, business closings, church closings, etc. Keep in mind that the news media told people to *follow the science* when the pandemic began. Why would that same media not report when scientists and health experts changed their minds about earlier positions concerning the virus and the government and public response?

“News is that part of communication that keeps us informed of the changing events, issues, and characters in the world outside. Though it may be interesting or even entertaining, the foremost value of news is as a utility to empower the informed.”

The purpose of journalism is thus to provide citizens with the information they need to make the best possible decisions about their lives, their communities, their societies, and their governments.”

AMERICAN PRESS INSTITUTE

The problem with the news media ignoring new or changing medical information (science) is that most government officials determine their decisions about how communities and states respond to the Coronavirus based on the scientific research and determinations of medical experts. Thus the phrase, *follow the science*. If the media does not report on new and changing information, the public doesn't know what's going on and can't make informed decisions about their lives.

The first words of the U.S. Constitution read “*We the People*. Our government is the People's government and is supposed to serve the will of the public. The news media plays a vital role in informing the People about the actions of its government. It is vital for journalists to remember they serve the public, not the government or the medical establishment.

The press/news media in the United States has often been called the *Fourth Estate*. That's because the press is supposed to serve as an involved observer over the actions of the Executive, Legislative and Judicial branches of government (First, Second and Third Estates). The news media should always play a watchdog/advocacy role in representing the people and never be complicit in promoting or protecting the government.

Journalists who quoted health and medical experts on their original positions should report on the experts' positional changes in a way that makes clear to viewers/listeners/readers that *science* (knowledge) has changed. If it changes again? Keep reporting the changes .. *follow the science*. Be curious, skeptical, objective and accurate. Be journalists.

When The Story Is Wrong

Journalists can do a variety of things when they get something wrong in a story. They should **clarify**, **correct** or **retract**. The goal is to be accurate and objective. Truth is the goal. If a journalist gets something wrong in a story, they should make it right.

- Clarification — “make a statement in a published story more clear”
- Correction — “a change made to something in order to correct or improve information in a story that is incorrect”
- Retraction — “act of taking back a statement or admitting that a statement was false, an act of recanting, taking back wrong information and making it right”

“Corrections policies are an unequivocally good thing about journalism. Even as accusations of “fake news” dog the industry, its response should be to double down on this practice.”

POYNTER.ORG, 2019

Then there's the important point about *where* in a newscast or publication a clarification, correction or retraction should appear. I had a rule as a news manager that clarifications, corrections or retractions of any story should appear at the same place in a newscast during the same time period. For example, if a journalist made a mistake in a story that ran as story #1 in the 6pm newscast, the clarification, correction or retraction should run as story #1 in the next newscast following the discovery of the error (e.g. 10pm) and the first 6pm newscast after the error was discovered. The reason was to do everything possible to reach the same audience of people who saw the original story. They need to know about the mistake and get the right information.

Another rule was that the correction or retraction should air long enough for people to clearly understand the error and the attempt to make it right. A one-sentence correction does not make up for a two-minute original report on television or a 100-sentence original story in a publication. The clarification, correction or retraction should include enough information to add context and understanding to the reason behind the station, network or publication's update.

Many corrections to stories are buried at the end of television news blocks or somewhere deep inside the back pages of a newspaper or magazine. That's not right. That's not honest journalism. If the media makes a mistake, they should own up to it and give the correction the same prominence as the original story.

As for retractions, they are rare in the news business. Journalists sometimes lose their jobs when they falsify stories and their employers have to publicly retract the stories.

Unfortunately, in our 24/7 world of newscasts, publications and social media, clarifications, corrections and retractions don't have the same impact on the public they had even 20 years ago. Once wrong information is reported and circulated, it's almost impossible to reach the same people who heard or read the original news story.

Unfortunately, many people read only headlines to news stories. Some only see the headlines on social media rather than in the actual newscast or publication. They often don't see that the original publication made a clarification, correction or retraction to a story. Once the headline information is out there, it is rarely changed or taken back. People believe what they remember reading and continue thinking something to be true even though it was discovered to be false or contain incorrect information.

Even people who see a corrected or retracted story often continue to believe what was reported originally. That's another reason for journalists to get their stories right the first time and not depend on clarifications, corrections or retractions that may not happen or have any impact on the public who may or may not see them or believe them.

The American Press Institute has some helpful suggestions for journalists about [writing corrections to stories](#).

Science Skeptic

I prefer being called a *science skeptic*. That's what journalists should be as part of their craft. We should be skeptical about any truth claim until we've done the work of a journalist and discovered the truth about the claim. If someone calls me a *science denier* rather than a *science skeptic*, I will do my best to explain the difference and walk with them through the specific scientific information in question.

Skeptic, yes. Denier, no. Journalists should know the difference.

The idea of hearing from a variety of scientific sources is not new. Here is some wise advice from almost 3,000 years ago –

“The first one to plead his cause seems right, Until his neighbor comes and examines him.”

PROVERBS 18:17

In modern terms it means we need to hear all sides of a story, not just the first one we hear or the side we prefer. Journalists should be first in line to get every viewpoint of a story, especially one as important as a global pandemic. We used to call the process “picking apart the scene.” That comes from the old days of covering murders and other crime scenes where journalists talked with everyone who witnessed a crime and photojournalists took pictures of the scene from every possible angle. Those eyewitness testimonies and photos often made the difference in finding and telling the truth of a particular story. Our job as

journalists wasn't finished until there was nothing left at the scene to see, ask or discover.

Another insight is this –

“He who answers a matter before he hears it, It is folly and shame to him.”

PROVERBS 18:13

If a journalist reports only one side of a story before hearing all sides, “It is folly and shame to him.” Journalists should be better than that. The public expects journalists to give them the whole truth from the beginning of their reporting. That means a careful, thoughtful, objective reporting of all the relevant evidence. Journalists who are too lazy or too biased to get all sides of a story should be ashamed of themselves. Journalists are not judge and jury on any story they cover. Reporters should report everything they can learn about a story honestly, accurately and fairly. The public is the jury. History is often the judge.

Corona Science

The citizens of the United States and scores of other countries in our world have had to learn a lot about *science* in the last few months. Here are some of the words that journalists have been using in their stories –

- COVID-19
- viruses
- novel coronavirus
- mutation
- viral dose
- viral load
- viral shedding
- disease
- illness
- sickness
- high temperature
- coughing
- hand washing
- hand shakes
- disinfectant
- hygiene
- antiseptic wipes
- face masks
- respirators
- N95 respirators
- ventilators

- symptomatic
- asymptomatic
- false positive
- statistical models
- outbreak
- endemic
- epidemic
- pandemic
- Chinese laboratory
- Chinese wet market (animal market)
- state of emergency
- flattening the curve
- contagious
- cytokine storm
- community spread
- spread of disease
- cluster
- screening
- transmission
- droplet transmission
- person-to-person transmission
- close contact
- confirmed positive case
- underlying health conditions
- immune system
- immunosuppressed
- chronic health conditions

- patient zero
- mortality
- morbidity
- co-morbidity
- death reporting
- case fatality rate
- incubation period
- hospital overrun
- fatality rate
- containment strategies
- isolation
- self-isolation
- home isolation
- self-monitoring
- self-quarantine
- mandatory quarantine
- elective procedure
- social distancing
- superspreader (silent spreader)
- aerosols
- lockdowns
- shelter in place
- shelter in place order
- stay-at-home order
- telemedicine
- closing businesses
- opening businesses

- testing
- drive-thru testing
- PCR tests
- immunity
- herd immunity
- nutrition therapy
- vitamin therapy
- sunlight therapy
- Vitamin D-3
- exercise therapy
- essential workers
- non-essential workers
- essential activities
- non-essential activities
- immunocompromised
- virologists
- epidemiologists
- infectious disease specialist
- Centers for Disease Control and Prevention (CDC)
- World Health Organization (WHO)
- personal protective equipment (PPE)
- antibiotics
- vaccine
- mRNA-1273 vaccine trials
- anti-viral medicine
- Hydroxychloroquine
- Remdesivir

- clinical trial
- antigens
- antibodies
- antibody testing
- T-cells
- contact tracing
- new normal
- we're all in this together

HELP! INFORMATION OVERLOAD!

Each one of the terms listed above is supposed to be based on *science*, yet there are many scientists who disagree on a large number of the topics. How can we ever know what's true? What's a journalist to do when experts disagree?

If we follow basic journalism guidelines of curiosity, skepticism, objectivity and accuracy, reporters would need to talk with scientific experts from a variety of viewpoints about the Coronavirus and response to the pandemic. Once reporters talk with those experts and have a good understanding of what each group believes and why, it's time to write their story. How should journalists handle the differences? Here are some options.

Which one(s) sound best to you?

1. Decide which experts agree with your belief (or the belief of your employer) about the pandemic and report only their viewpoint .. leaving out the experts with whom you disagree.
2. Decide which experts agree with you and give those experts most of the time/space in your story. Give the experts who don't agree with you a sentence or two (at most) for the appearance of covering all sides of the story.
3. Decide which experts agree with you and make them look good while you make the experts who don't agree with you look bad. You can do that by taking some experts out of context or even manipulating their interviews to have them appear to say something they didn't say or believe something they don't believe.
4. Decide to present all of the experts accurately and fairly so your audience/readers can determine what they believe to be true. Don't demonstrate any personal bias through words, voice inflection or body language during your report. If the large majority of scientists you interview agree on a particular point, share that information but allow a minority viewpoint by qualified experts a fair hearing.

If your answer was #4, then you would be following best practices for journalists as prescribed by the ethical guidelines of most journalism organizations ([see our previous article for list of several organizations](#)).

Following People

People follow people.

That's a quick summary of the history of the world.

People follow people and they usually believe the people they follow. When someone says *follow the science* what they often mean is “follow the people I follow.” That may be fine if the people they're following are telling the truth, but what if they aren't? A longer look at the history of the world shows that leaders often lie and people often follow liars, which means the public ends up believing lies. Believing lies leads to living lies. Not a good way to live or make decisions about life.

How does that affect journalists? It means reporters need to be vigilant in source and fact checking. It means they need to work hard to ensure their news stories include varying, even opposing, expert views about scientific information concerning the pandemic. It also means journalists must be objective and fair in the way they present the experts and their scientific findings. If journalists have a personal bias for one side and against another side, they either need to check their bias at the newsroom door and do what journalists are supposed to do (report truthfully and fairly) or find another line of employment.

It's easy to spot a journalist who has a personal, corporate or even political agenda by how they present one side of a story in a positive light and another side in a negative light rather than presenting information from all sides fairly. Journalists can say they included both sides in their story, but their bias often shows.

How does that affect the public? It means people have to be diligent as news consumers. We need to check out multiple news sources that give us a variety of viewpoints about stories. We need to compare the information those sources present to us and be sure we're getting to the truth of a story, especially one as important as the Coronavirus Pandemic. Even as journalists should be curious and skeptical about what people tell them, so should citizens of this great nation.

I watch multiple network and local news stories every day. I also read a wide variety of news publications each week. Why? To find truth somewhere in the many words of reporters, anchors, experts and commentators. It often means doing the laborious work of fact-checking what reporters say and write to see if they're telling the whole truth. It's not easy work, but it's work we must do to continue to be a free society.

Scientists are people. People. Just like you and me. That means they can get things right and they can get things wrong. That means they can tell the truth and they can tell a lie. That means they can change their mind about things they once believed. Their reason for changing their mind can be good or bad. That means they can have strong biases. That

means they can be pressured by employers, governments and even fellow scientists to present a particular view even if not true.

That's why it's important for journalists to do a good job vetting the scientists they interview for their stories and why the public needs to do a good job vetting the journalists they look to for accurate information. Even as journalists should talk with many sources for every story, consumers of news should carefully check out many sources of news for their stories.

News or Opinion?

One more word about the news media. There is a difference between news reporting and anchoring and show hosting and editorializing. When I started in news more than 50 years ago the difference was clear in both print and broadcast. Editorials and opinion pieces were presented by non-news personnel in their own segments of a newscast (e.g. editorial block) and special sections of a newspaper (e.g. editorial page). The segment often began with a verbal or written announcement that what viewers were about to see was an 'editorial' that did not necessarily represent the views of the station or its advertisers. The same was true for newspapers. Media owners used to care about making sure audiences knew whether they were getting news or opinion.

Unfortunately, that's not the case with many networks, stations and newspapers today. News anchors are also show hosts and have strong opinions about the news content in their shows. Reporters often add personal opinion to the stories they report and banter with the show hosts about their opinions. That often leads viewers to misunderstand opinion as news content. Guests who have obvious bias are often presented as experts on subjects without alerting viewers to the biases. Their expertise often disguises their bias, personal preference and opinion. The lines are blurred to the point that the public thinks its getting news when it's really getting opinion. That goes toward [the loss of trust](#) the public has in the news media today. It is unfortunate and has only gotten worse over time instead of better.

Investigative Journalism

Let me address investigative journalism for a moment. We rarely see true investigative reporting anymore, but it used to be something many journalists did. I was an investigative reporter and also managed a team of investigative journalists. Investigative reporting will often cast a negative light on a particular person, group of people, business, organization or political or governmental body. However, a proper investigation will present all the evidence uncovered during the investigation, and the investigative process, before presenting a conclusion. It should be accurate and objective, even though the conclusion will often include negative findings. Investigative reporters who are good at their craft will carefully outline the steps they took during

their investigation so the public can see that the investigation was thorough and fair and the findings can be trusted.

Honest investigative reporting will often shine a bright light on evil and corruption. Corrupt people don't like having an honest light shown on them and what they're attempting to accomplish in the dark. They often run and hide or point fingers and blame others. They often lie. Investigative journalism is legitimate and needed because it brings evil into the light for all to see. The public needs to know when powerful people are corrupt.

"Power tends to corrupt; absolute power corrupts absolutely."

LORD ACTON, 19TH CENTURY BRITISH HISTORIAN

Remember that powerful people love power and want to keep it. Power means control and powerful people love to control people. They will often do whatever they need to do to keep that power. Unfortunately, that can and does include journalists, the people who manage them and media owners.