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## Reasonable Doubt?

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## Reasonable Doubt?

### Abstract

"It is important to engage in critical thinking and dialogue when it is done carefully and lovingly."

Posting about finding commonality despite disagreements from *In All Things* - an online journal for critical reflection on faith, culture, art, and every ordinary-yet-graced square inch of God's creation.

<https://inallthings.org/reasonable-doubt/>

### Keywords

In All Things, belief and doubt, science, climatic changes, COVID-19 pandemic

### Disciplines

Sociology

### Comments

*In All Things* is a publication of the [Andreas Center for Reformed Scholarship and Service at Dordt University](#).

# Reasonable Doubt?

Jeff Ploegstra

August 31, 2021

Do you believe in a flat earth? I am assuming no. But why not?

In an interview with Adam Yamaguchi at a flat earth convention, Mark Sargent, a prominent flat earth event organizer, makes the statement that it isn't that hard to change people's minds. He argues that it isn't even all that hard to create reasonable doubt in a spherical globe. He starts by saying, "There's lots of things in science that have been disproven over the years... can I prove to anyone right now... that the earth is flat? No, I cannot..." But he argues that he can create a lot of doubt, building enough distrust in the audience to change their minds and start them on a path. He later asks rhetorically, "Is reasonable doubt enough?" He answers his own question, "Yes."

It is worth questioning why we trust some people, ideas, or institutions and not others. Most people easily accept that smoking causes lung cancer, but does it? Only 10-20% of heavy smokers will ever develop lung cancer <sup>1</sup>, and there are a variety of other causes of lung cancer <sup>2</sup>. Is the general public asking for matched-pairs, controlled, experimental evidence? It doesn't seem so in this case. People take many ideas like this at face value, but once doubt or fear set-in—or motivated reasoning—people will promote a line of reasonable doubt that causes them to misuse data, cherry picking, misrepresenting, or extrapolating in bizarre ways. Unfortunately, even "professionals" occasionally do this <sup>3</sup>.

Dr. Danny Faulkner, in his article "Reflections on the Flat Earth Conspiracy," argues that once you doubt something really fundamental, something that you may have taken for granted your entire life, it becomes very easy to find yourself doubting all kinds of things. Interesting. Why was it so hard for people to take COVID-19 seriously from the beginning? Has someone undermined our faith in science?

The skepticism, even by a few health professionals early on, was baffling to me. It was with horrified fascination that I watched misinformation and doubt spread through the internet like a disease. I remember a pair of doctors from California <sup>4</sup> taking positivity rate data from symptomatic and self-selected individuals and extrapolating these to the population at large, implying that millions of people in California had already been exposed and therefore the fatality rate and morbidity were negligible. This obvious abuse of statistics (representative sampling, anyone?) as well as their misrepresentation of how your immune system works were later condemned by their professional organizations <sup>5</sup>, but the damage had already been done. Doubt was seeded.

Don't get me wrong, it is good to be *appropriately* skeptical. It is important to engage in critical thinking and dialogue when it is done *carefully and lovingly*. I also believe everyone has the right to make up their own mind on things; I would even say that it is good moral exercise for people to wrestle with decisions that have important implications for them and their community. However, it is interesting to me how our standards of evidence become very high in some cases, yet are extremely low in others. It is also interesting how our trust in expert interpretations and the consensus of institutions we have relied upon for so many other decisions is so easily overturned by a few dissenting voices.

I think this often has to do with the fact that people don't like to change. We subconsciously understand that if we choose to accept some ideas, our lives have to change—from smoking, to losing weight, to addressing climate change, to wearing masks and social distancing. It is interesting that so many people who are so committed to a worldview<sup>6</sup> centered around life change appear to be the most skeptical of other life-changing ideas.

To be fair, it wasn't very hard for me to accept the evidence for the pandemic and its likely impact from very early on—probably because I teach microbiology and epidemiologists have been saying for years that we were due for another pandemic. The way people live and interact is perfect for it—high density living with lots of travel between population centers. I was also able to understand the science, the nature of the virus, similar viruses, tissue tropisms, herd immunity, qPCR, viral load, antigen testing, antigen overlap, non-specific immune activation. I also have a general familiarity with modeling and study design, ideas like exponential growth, principal component analysis, and R0, the difference between false positive rates and positive predictive values, or attributable risk (yes, I am making a long list to highlight that this is complicated). I don't talk to the average person about these things, and neither do most of the real experts, because it takes more time than most people are willing to devote to the questions to really wrap your head around the whole picture. I do talk about death and hospitalization. **Excess mortality and hospitalization numbers** seem to be the thing that people listen to. Probably because they are tangible and hard to ignore.

So, what do we do with things like climate change that seem even less tangible in many ways? Do we wait until our neighbor is dying “of climate change” before we “trust” the models? Before we take the issue seriously? I thought about this a fair bit as I have again watched some amazing sunsets this summer—beautiful reds and purples caused by massive forest fires out west. There is not the cleanest evidentiary chain between climate change and forest fires<sup>7</sup>, but it is certainly plausible.

Watching these sunsets, I frequently hear an echo in my head, “Who is our neighbor?”<sup>8</sup> I wonder, how clear does a link need to be before we act? How profound the damage? How directly connected do we need to be to the victims?<sup>9</sup> These are not rhetorical questions. I hope people actually think about these things, because with big, messy, complicated problems, we usually can't afford to wait until we are *certain* to act.

I don't smoke. My Dad did when I was younger—legend has it that he was given his first cigarette by a nurse when he was in the Navy. I remember car rides when the whole family would complain about the hotboxing effect we would experience on cold days when you didn't want to roll down the windows. I remember the dry burnt smell that would stick in your sinuses and de-flavor everything you ate at lunch after the car-ride home.

He quit after 30 years of smoking—sometimes two packs a day. He just stopped. Was it a fear of lung cancer? Was it love for his family? Was it the other health benefits of making the change? It was probably a combination. It was a big sacrifice for him, and he probably doubted at times whether it was worth it.

It was hard.

It was also *good*, not only because of the effect on his health, but it also provided me with important evidence that people *can* actually change, even when change is hard.

I will say that it is also easy to look at others and want them to change, while failing to examine your own biases and prejudices (logs and splinters anyone?) <sup>10</sup>. I find this to be one of the biggest social maladies of our time—everyone seems inclined to try to force *others* to change—through memes, spin, and SHOUTING ON SOCIAL MEDIA. I think everyone should take a step back and really examine their own biases, motivations, and expertise. People should ask themselves whether they know enough to *even have an opinion* worth sharing. Maybe we could let social media be stories and pictures of family, friends, and maybe the occasional kitten...things that draw us together and give joy.

Just an aside that might help you relax a bit: it is OK that you are not an expert on everything.

I have heard a snarky quote from a poem about my hometown of Sioux Center. It goes like this: “Do they love? They love—to be right.” I don't want this to be true, but too many posts I see are selectively choosing bits and pieces of information that make someone else look foolish and slanting the statements of others against them <sup>11</sup> Perhaps we could instead acknowledge lines of commonality and agreement *as well as* lines of disagreement. We could treat others as we would hope to be treated <sup>12</sup>—as complicated human beings. Instead of simply trying to draw lines and “win,” or solidify your base by creating strawmen to rally the troops against, leaders could seek common ground to work from. That doesn't mean that we all have to agree with everyone, but the current trajectory is further discord and entrenchment. You only have to watch children fighting and yelling at each other to realize that “change” in other people rarely results from beating them over the head. Quite the opposite—when you push hard, people usually push back and dig in their heels. Alternatively, when we know we are understood and loved, we are far more likely to hear how we might not have something quite right.

I doubt that we will see a cold turkey stop on uncritical posting of misinformation. I am presented every day with reasons to doubt that people will stop abusing other people, ideas, and institutions as mechanisms to promote their agenda, feel secure, or reinforce their sense of self-worth. It is too easy, too successful, and too gratifying.

I have my doubts because this kind of change is hard. But it *is* good. So even amidst doubt, I think I will choose to hope. Some doubts are worth pushing against.

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1. Even though this may sound low, this actually represents a huge increase in risk from non-smoking <https://bmjopen.bmj.com/content/8/10/e021611>
  2. Smoking is associated with 80-90% of lung cancer deaths according to the CDC. [https://www.cdc.gov/cancer/lung/basic\\_info/risk\\_factors.htm](https://www.cdc.gov/cancer/lung/basic_info/risk_factors.htm)
  3. <https://www.acep.org/corona/covid-19-alert/covid-19-articles/acep-aaem-joint-statement-on-physician-misinformation/>
  4. Though the original video was removed, you can watch a review of it here [https://www.youtube.com/watch?v=TZJ3sZnTn7Y&feature=youtu.be&fbclid=IwAR0fTBay66QI7iUIwNrPc7e\\_3VnaHUyMX2e\\_oP43gWb5uEwWP2Rdq43dhZM&app=desktop](https://www.youtube.com/watch?v=TZJ3sZnTn7Y&feature=youtu.be&fbclid=IwAR0fTBay66QI7iUIwNrPc7e_3VnaHUyMX2e_oP43gWb5uEwWP2Rdq43dhZM&app=desktop)
  5. <https://www.acep.org/corona/covid-19-alert/covid-19-articles/acep-aaem-joint-statement-on-physician-misinformation/>
  6. Ephesians 4:20-24, II Corinthians 5:14-15, Romans 12:1-2
  7. <https://www.ucsusa.org/resources/climate-change-and-wildfires#:~:text=There%20is%20a%20strong%20connection,practices%20often%20exacerbate%20wildfire%20risk.>
  8. Luke 10:29

9. Excess mortality clearly indicates that the impact of COVID-19 on non-white communities is profoundly higher than on white-caucasian [https://www.cdc.gov/mmwr/volumes/69/wr/mm6942e2.htm#:~:text=Based%20on%20NVSS%20data%2C%20excess,were%20attributed%20to%20COVID-](https://www.cdc.gov/mmwr/volumes/69/wr/mm6942e2.htm#:~:text=Based%20on%20NVSS%20data%2C%20excess,were%20attributed%20to%20COVID-19)

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10. Matthew 7:1-3

11. Exodus 20:16, Proverbs 21:10, 28

12. Mark 12:31