

Not My Fault: Your behavior matters in how this plays out

Lori Dengler/For the Times-Standard Posted Mar 14, 2020

Halloween 2009. It was my last full day of fieldwork as part of a reconnaissance of the September 27 tsunami. My team stopped at the village of Sale'a'unaunua where we interviewed a young woman. It provided one of the most useful insights of the entire trip. She had been overtaken by the tsunami and the tsunami debris entrapped her leg. She was barely able to extricate herself before the larger second wave came. She felt the earthquake strongly and was aware that a tsunami could soon follow. But on that day, there was a group of boys and young men hanging out nearby and she worried that the men would think her foolish for evacuating. Embarrassment about how her behavior would be perceived nearly cost her life.

It was an 'aha moment' for me. Social cues and our concern over others' perceptions so easily take precedence over rational decision-making. We are at our core, social animals and embarrassment is a powerful factor in how we relate to one another. Sometimes social cues are positive. In Chile five months later on another reconnaissance study, we talked to several officials and tsunami survivors who described how many vacationers camped on beaches noticed local residents evacuating after the earthquake. The herd instinct took over and most tourists in areas intermixed with locals successfully evacuated.

The new COVID era has sharpened my awareness of the importance of behavior as the coronavirus, like a slow-moving tsunami, approaches our communities. Unlike the tsunamis in 2009 and 2010 where decisions and actions needed to be taken in minutes to ensure survival, we've already had some time to adjust to the oncoming pandemic. Three weeks ago the majority of my acquaintances thought I was overreacting when I expressed my concerns and several downright pooh-poohed me. By last week, many still raised an eyebrow when I refused to hug and insisted on elbow bumps.

Thursday was the pivot point. The disastrous presidential address the evening before, stocks in free fall, the explosion of global cases particularly in Europe, and the closures/cancellations of theater/sports/music and most

everything else brought the reality of the new COVID era home. And even if a few are still crying 'over reaction', those voices are weakening daily.

And people are reacting and not always in rational ways. I did a Google News search for 'coronavirus panic' and came up with 238 million hits. No I didn't look at all of them, but there were several of interest. "Here's why society is reacting with panic to the coronavirus," headed a story in Tuesday's World Economic Forum. It argued a shared feature of COVID19 reaction across the globe is extreme distress, complicating management and response to the epidemic. Unlike earthquakes, floods and tsunamis, human behavior is the single most important factor in the scope of a pandemic and containment is dependent on individual decision-making and actions.

One factor muddying the waters is the difficulty people have with statistics and probability. Everyday we read conflicting information about case numbers, the virus spread, how many people are likely to contract the coronavirus, and the percentage who will die. In addition to a plethora of new terms, most people don't understand the role chance plays in how a disease plays out.

A few months ago I started reading "The Drunkard's Walk, How Randomness Rules Our Lives" by Leonard Mlodinow. It may sound like nerdy bedtime reading but it was well written, entertaining and worth the time. I had no idea how relevant it was to pandemics at the time. Almost every event in our lives has an element of chance to it – from winning an athletic competition, auditions, playing the stock market and of course, gambling. Not surprisingly, the first studies to put probability into a mathematical framework came from gamblers who were interested in furthering their gambling fortunes.

Probabilities influence our lives in weather forecasts, sports strategies, advertising, political polls, and what you pay for insurance. But we have a hard time understanding what they mean. I've had an ongoing debate with colleagues about using probabilities to promote earthquake preparedness. They make detailed maps with percent estimates. People immediately notice that where they live might not be a brightly colored as another area and assume, because it's not as high a risk region, they don't need to worry about it.

Just like earthquakes, misperception of relative hazard is showing up big time with COVID. The death rate of older individuals and people with underlying health risks is perhaps ten times greater than younger people, so it's easy to say "I'm healthy and 25 and therefore don't have to worry." Wrong. Even if the death rate for your age group (and remember we don't have very good data right now), were as low as 0.1%, you should still be concerned. That number is probably much lower than what the real COVID rate is but it makes for a good example. Imagine that the airline industry had a 0.1% crash rate. That means for every 1000 planes flying, one would crash. How eager will you be to get on an airplane?

We are all at risk of COVID-19 and it is spreading widely. In the United States, the number of reported cases is doubling approximately every three days. As I write on Saturday morning, there are just under 2500 reported cases. That means 5000 by Tuesday, 10,000 by Friday, and if nothing slows it, over 150,000 by April 1.

Your behavior matters in how this plays out. What you do to slow the spread will make a difference. It spreads by contact with people – through droplets in the air and by touching contaminated surfaces. It is going to spread in Humboldt County but you can affect the statistics of what we end up with. The number of cases will likely look a little like a bell curve – starting slowly, ramping up to a peak and then tapering off. The goal is to FLATTEN THE CURVE, to spread it out so that the onset is slower and the peak reduced and medical facilities aren't overwhelmed. That means washing hands frequently, social distancing and self-isolation if you think there is any chance you might have been exposed. Be a leader – show everyone that there is nothing silly about taking COVID-19 seriously.

Note: Make sure you get credible information about the coronavirus. Sign up for Health Alerts from Humboldt County at https://humboldtgov.org/2018/Humboldt-Health-Alert. Visit the State's COVID information page at https://www.cdph.ca.gov/Programs/CID/DCDC/Pages/Immunization/ncov2019.aspx or follow communitypandemicresponse on Facebook.

Lori Dengler is an emeritus professor of geology at Humboldt State University, an expert in tsunami and earthquake hazards. All Not My Fault columns are archived at

https://www2.humboldt.edu/kamome/resources and may be reused for educational purposes. Leave a message at (707) 826-6019 or email Kamome@humboldt.edu for questions or comments about this column, or to request a free copy of the North Coast preparedness magazine "Living on Shaky Ground." https://www.times-standard.com/2020/03/14/lori-dengler-your-behavior-matters-in-how-this-plays-out/