



Better Healthcare Newsletter from Patrick Malone



The plague of misinformation, disinformation and uncertainty swirling through our pandemic world has one distinct upside for our human brains.: the chance to better understand and cope with the cognitive biases that influence our thinking.

This is not just for the other guy. Every one of us is in the grip of ways of thinking that use shortcuts to reach understanding and decisions which can lead us mightily astray. These shortcuts hum along automatically, so we're not always aware of what's going on inside our heads.

Diving into some hard thinking about thinking can help clarify our minds and protect us from bad ideas and sketchy decisions. So let's look at cognitive biases in health care and what they say about human

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We can get big benefits from battling mental illusions and built-in biases

A dive into shark tales reveals much about our shaky assessment of risk

Where's the Good Data?

BY THE NUMBERS

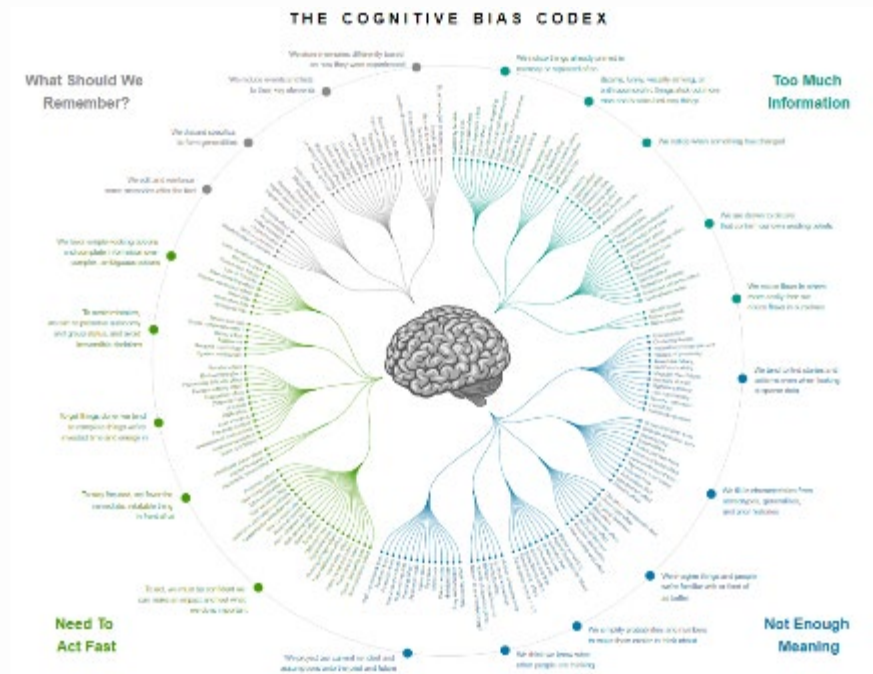
28%

Percentage of medical diagnostic errors attributed to cognitive biases. Diagnostic errors are associated with 6%-17% of all adverse hospital incidents.

thinking.

Put on your thinking cap, and here we go ...

Cognitive biases vex us all. But to cope with a pandemic, we need clear thinking.



A video dubbed “Plandemic” a few weeks ago went viral — forgive the expression — on social media. The slick 26-minute piece made extreme claims about the coronavirus: that establishment scientists stood to make billions in profits from vaccines, that wearing masks would activate viruses, and that millions had already been killed by vaccines.

Outlandish, yes, but influential.

The [New York Times](#) reported that the falsehoods in this spurious work in just a week “had been viewed more than eight million times on YouTube, Facebook, Twitter, and Instagram, and had generated countless other posts.”

Plandemic has been denounced and debunked. But what does the infectious popularity of material like this say about the cognitive biases we all have?

Important insights come from behavioral psychology and behavioral economics, which have burgeoned with the work of scholars like psychologist Daniel Kahneman, Amos Tversky — his late colleague and a cognitive psychologist — and the economist Richard Thaler.

They and others have [scrutinized how people think](#), and have found patterns and repeated flaws that give us powerful ways to talk about

250,000

Estimated annual toll of preventable medical errors in U.S. health care system. This makes medical error the third leading cause of death, trailing only heart disease and cancer.

80%

Percentage of wrong responses to famous puzzle: "Linda is 31 years old, single, outspoken, and very bright. She majored in philosophy. As a student, she was deeply concerned with issues of discrimination and social justice, and also participated in anti-nuclear demonstrations. Which is more probable? 1. Linda is a bank teller. 2. Linda is a bank teller and is active in the feminist movement."

\$30 billion

Estimated amount (pre-pandemic) favorably added to Americans' retirement accounts due to Thaler-advocated 'nudge' of opting-out of rather than opting-in to savings plans.

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[Nine Steps](#)

mental pitfalls into which we all too easily may plunge. Their line of study has proven so valuable that Kahneman and Thaler received Nobel Prizes (and Tversky would have too, but for dying too soon).

One important cognitive bias is called “confirmation bias.” We all rely on it. It describes how we look for facts that confirm our existing beliefs. Social media magnifies this bias by feeding us bits of news with algorithms that have “learned” exactly what content we will engage with, based on our past clicks.

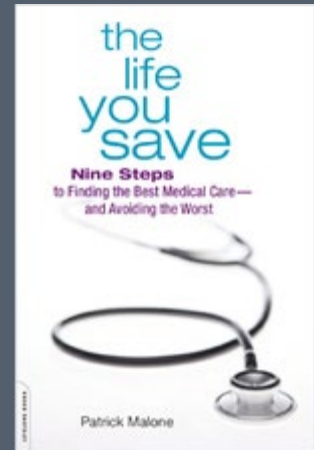
Two other cognitive biases play together with confirmation bias to create insular worlds of belief and conviction that are hard to penetrate with mere facts. They are:

- Availability bias, in which perceptions that are immediately “available” to us — ones that we see in our own lives — get a thumb on the scale of importance. We assume that what we see and experience is the norm, even when our personal experiences are not at all representative of everyone else.
- Tribalism, in which we sort the world into “us” versus “them” categories. We use cognitive shortcuts to make assumptions about others that may have no bearing on reality, but that feel very true to us. Racism is an ugly variant on this, as is all kinds of other stereotyping of other people based on skin color, gender, physical appearance and other attributes that we use to turn quick perceptions into firm judgments.

Availability bias helps explain the throngs of people ignoring social distancing at swimming pools and beaches. Everyone they know looks healthy, and the intensive care units overwhelmed with dying Covid-19 patients seem a world away. It’s only when the pandemic comes into your own world that it becomes “available” and real. Tribalism works as a reinforcer that binds us together with others of similar views. It may help explain why those with extreme suspicions of government and authority, including about guns and vaccinations, have become protesters against public health restrictions, and now, suddenly, ardent foes of face coverings. Confirmation bias and availability bias help fence out facts, including about safeguarding our health, that our tribe doesn’t want to acknowledge.

Julie R. Ancis, Ph.D., a psychology professor, sees people tugged by cognitive biases, like the affect bias (when emotions sway decisions), cognitive dissonance (the attempt to rationalize and achieve a balance between beliefs and contradictory behaviors), and the social norms bias (wanting to fit in with peers, even if this means disregarding authorities and experts). As she argued:

to Finding the Best Medical Care — and Avoiding the Worst



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PAST ISSUES

Will Covid-19 pandemic throw rigorous science into pandemonium? Protecting hearts, minds and souls in a time of pandemic
Special edition: Practical tips from a virus expert on how to protect yourself from Covid-19
What are viruses, anyway, and why should we care?
Deaths from lung cancer

"Individual interpretations of Covid-19-related information are prevalent. Such interpretations are not necessarily fact-based and are thus prone to error. Understanding how such misinterpretations occur and combating them are essential for living in a safer world amid a global pandemic."

In various types of medical encounters, [studies have found risks of cognitive biases](#). Another example is the anchoring bias — the predilection of people to seize on the first bit of information presented and to rely in excess on it. Does your doctor focus just on the high stress you tell him about at your job and decide you need anti-anxiety drugs, not that you might be showing early signs of a stroke?

Experts also express concern about the diagnostic and premature closing biases — allowing perceptions to color decision-making and sticking to a premature and wrong identification of a problem. Does your doctor see you only as a weary working mom, overlooking other possibilities and missing clues that you're a woman with advancing heart disease?

Studies also raise concerns in medicine about self-explanatory cognitive biases like overconfidence, tolerance of risk (too low or too high), and commission-omission — clinicians' propensity to action rather than inaction or vice-versa. Does your surgeon want to jump in and operate, while your oncologist urges you to try chemotherapy first?

The damage that can occur due to these thinking shortcuts by medical personnel can be huge. [Medical errors claim the lives of roughly 685 Americans per day](#) — more people than die of respiratory disease, accidents, stroke, and Alzheimer's, combined. That estimate comes from a team of researchers led by a professor of surgery at Johns Hopkins. It means medical errors rank as the third leading cause of death in the U.S., behind only heart disease and cancer.

[The Joint Commission](#), a leading industry group that studies and certifies the safety and quality of care at U.S. hospitals, has found that "cognitive biases are increasingly recognized as contributors to patient safety events ...[with their having] been identified contributors to a number of sentinel events, from unintended retention of foreign objects (e.g., search satisficing), wrong site surgeries (e.g., confirmation bias), and patient falls (e.g., availability heuristic and ascertainment bias), to delays in treatment, particularly diagnostic errors which may result in a delay in treatment (e.g., anchoring, availability heuristic, framing effect and premature closure). According to literature, diagnostic errors are associated with 6% to 17% of adverse events in hospitals, and 28% of diagnostic errors have been attributed to cognitive error."

Cognitive biases contribute to other significant problems in health care, [bollixing up not only frontline treatment but also crucial medical-scientific research](#). Studies, of course, start with a hypothesis that experts then strive to prove correct.

To start, however, they might equally show the accuracy of their theory by seeking information that shows it to be wrong, not right, as

are down, but big reasons persist to breathe uneasy about respiratory health

[You Can Eat This... But Why Would You?](#)

[Looking Ahead: Preparing for Long-Term Care](#)

[Managing Chronic Pain: It's Complicated](#)

[Secure Health Records: A Matter of Privacy and Safety](#)

[Standing Tall Against a Fall](#)

[More...](#)

“hypothesis myopia” may lead them to gather only affirmative information. They also may look at information before them, and, to affirm their theory, they may squash together random bits into a coherent whole (the “sharpshooter bias” named after the doofus rifleman who fills the side of a barn with holes, then draws a target around the best-looking grouping).

John Ioannidis — a [Stanford expert who has himself become a flash point](#) in discussions about the medical science involved in policy making during the Covid-19 pandemic — has [built a career](#) out of debunking problematic research, dissecting the [flawed thinking that creates outcomes in study after study that seem to reverse what doctors and patients just have been told is true](#).

He and colleagues have found medical-scientific [researchers show cognitively biased](#) partiality for American studies, and their work can be swayed by who funds or supports it, as well as how often others in the field cite an author or publication. They found that small studies were biased to report larger effects, and early work in an area saw greater extremes in reported findings, which tend to diminish over time.

The corruption of the rigorous research process, by haste, sloppiness, exigency, and politics — as well as by cognitive bias — has become a whopping concern with costly prescription medications, dicey treatments, and especially the world’s struggle with a novel coronavirus. I’ve written about this in a recent newsletter ([read it by clicking here](#)).

A collateral harm to the undercutting of science, of course, is how cognitive biases can run amok with public health care policy. That it is happening is nothing less than a nightmare that the nation seems to be mired in now.

Credits: Photo, top: Woman in thought, @China Lee, Unsplash. Illustration, above: Wikipedia list of 188 cognitive biases, grouped in categories and rendered by John Manoogian III as radial dendrogram (circle diagram). Category model by Buster Benson, biases linked to Wikipedia articles by TilmannR.

Two thought systems, many headaches



Kahneman, Tversky, and others in behavioral psychology always took care to avoid condemning people for their cognitive biases. We all have them. We all rely on them. Their work proves we're all in this together.

In his book "Thinking, Fast and Slow," (and in his [Nobel Prize speech, available online](#)) Kahneman carefully described how people employ two different and fundamental ways of thinking and decision-making, with each suffering its own weaknesses and illusions. He called them System 1 (fast and intuitive) and System 2 (slow and deliberate).

System 2 is the approach that we might think ideal. It is slow and careful. It looks at information in different ways and weighs and analyzes it. If you've taught a teen-ager how to drive, you would recognize System 2 as the pokey approach: check this, confirm that, remember this, and, oh, yes, try that ever so gingerly.

Few of us could operate in the fast-moving world if we only employed System 2, so we rely a lot on what Kahneman described as System 1. It is quick, tapping into a sketchy recall of memory and experience to make choices and get things done. System 1 may be the main home, too, of cognitive biases and what experts call heuristics. These are mental shortcuts that enable factors like "snap judgments" or "gut feelings" to sway our decision-making.

Sometimes right, often wrong. But never in doubt. And always keeping us moving.

In its extreme, System 1 thinking produces a cognitive bias called the [Dunning-Kruger effect](#), in which the most incompetent believe and act as if they're the most knowledgeable and capable, because they're too dumb to see their own shortcomings. Sound familiar from our national politics?

Bertrand Russell, the British polymath, famously said: "The trouble with the world is that the stupid are cocksure and the intelligent are full of doubt."

And the rest of us make big mistakes about who we trust as leaders because we use a cognitive shortcut that tells us we can judge the

merits of what "experts" say by gauging their own self-assuredness. This has kept many a television pundit in business despite long trails of wrong, but assuredly delivered, predictions. It may explain the smug and dangerous declarations of a medical kind made during the recent uncertain times by celebrities and doctors (advising in areas where they lack credentials).

In pandemic response planning, public health officials long had a firm rule against letting politicians serve as the daily news media briefers, because, in part, of their tendency to deliver fully self-assured soundbites not always tethered to scientific reality. That rule, of course, went by the wayside this year.

Americans, alas, are grappling still with the consequences of a ferocious intellectual war that has raged since the 1940s and 1950s about economics, public policy, and decision making and behavior. These were not mere tempests in ivy-covered towers: They have cost patients money and big nightmares, as too many of us have re-learned during this pandemic. Not only are so many of us afraid of getting sick with the coronavirus, we're terrified about the bills that would stack up. Too many of us have delayed important care, maybe because we may have taken pay cuts or been furloughed and wonder how we'll pay for medical services. Staggering numbers of Americans have become jobless — and many will be petrified about losing employer-provided health insurance. The coronavirus has laid bare disturbing injustices in the U.S. health care system affecting the poor and people of color. As we stumble into a new, Covid-19 affected "normal," it may be key to look back at key aspects of how we our health care got so dysfunctional.

In brief, after the Allied victory in World War II, math, science, and technology enjoyed a rare heyday. The vast logistics needed to defeat the Axis also left this country in awe of statistics, with booming business emphasizing the importance of data and efficiency. Intellectual giants like Milton Friedman put forth systems built on the idea of free markets and the "economic man," a strong individual who could be rational in thinking and behavior and should be left alone, especially by governments, to make choices about life.

Kahneman was scrupulous not to overplay what he and Tversky had found, writing "I often cringe when my work with Amos is credited with demonstrating that human choices are irrational. In fact, our research only showed that humans are not well described by the rational-agent model." But Kahneman, Tversky, and others in behavioral economics raised important questions that did not fit with theories that have gained big influence in U.S. administrations and others around the world, including in the 1970s.

Few may recall that back in that decade, politicians — influenced by the notion that people made careful, reasoned health choices — took up the possibility of universal medical care, focusing on its costs, use, and affordability. A key behavior study surprised many, finding that if patients paid even a little for medical care, they used less of it, and without "damaging health or quality of care for most people." The

researchers also found "that cost sharing can be a blunt tool, reducing both needed and unneeded health services in roughly equal proportions." It meant "selected serious symptoms worsened for the sickest and poorest patients ..." The study concluded that cost sharing should be "minimal or nonexistent for the poor, especially those with chronic disease."

While this study had salutary effects, supporting a push for managed care, politicians showed their confirmation bias: They leaped to conclusions about "wasteful" medical spending (that's any expenses ordinary folks may incur) and they backed a rational-irrational approach. It has become known by the phrase "skin in the game": Patients — to deter "unnecessary spending" — must help with skyrocketing medical costs, paying a bigger share themselves of what have become crushing bills. This has become especially true under the health insurance most get at work. As Noam Levey [reported in the Los Angeles Times](#):

"High-deductible health plans, which are fast becoming the dominant form of coverage for U.S. workers, were supposed to empower patients. Backers said the plans would create engaged shoppers who would check prices and compare providers, forcing hospitals, doctors, and drug makers to control costs. Deductibles have [more than tripled over the last decade](#) for people who get insurance through their jobs, but the promised consumer revolution never materialized. Instead, Americans have been left shopping in the dark and increasingly struggling with medical bills they can't afford ... 'This idea that we were going to give patients "skin in the game" and a few shopping tools and this was going to address the broad problems in our health care system was poorly conceived,' said Lynn Quincy, former health care advocate at Consumer Reports ... 'It hasn't made people feel more confident seeking care. It hasn't led to better value. And it's had terrible consequences on patients' ability to afford care.'"

Policy makers' cognitive bias for what has become the status quo with patients' roles and burdens has kept too many leaders from grappling with the irrationality of U.S. health care, notably how doctors, hospitals, Big Pharma, and insurers [set prices almost without regard to critical concerns like supply and demand](#).

Thaler, early in his career, saw the economic implications of behavioral psychology and sought out Kahneman. This felicitous pairing led [Thaler to prominence as a pioneer of behavioral economics](#), of which the New York Times reported:

"The Nobel committee, announcing the award [of the economics prize] ... said that it was honoring Professor Thaler for his pioneering work in establishing that people are predictably irrational — that they consistently behave in ways that defy economic theory. People will refuse to pay more for an umbrella during a rainstorm; they will use the savings from lower gas prices to buy premium gasoline; they will offer to buy a coffee mug for \$3 and refuse to sell it for \$6. The committee credited Professor Thaler ... for moving economics toward a more realistic understanding of human behavior, and [for using the resulting](#)

insights to improve public policies”

Thaler has pioneered important ideas applicable to health care. He may be best known for advocating nudges — gentle pushes, based in behavioral research, to get people to follow policies and practices that may benefit them.

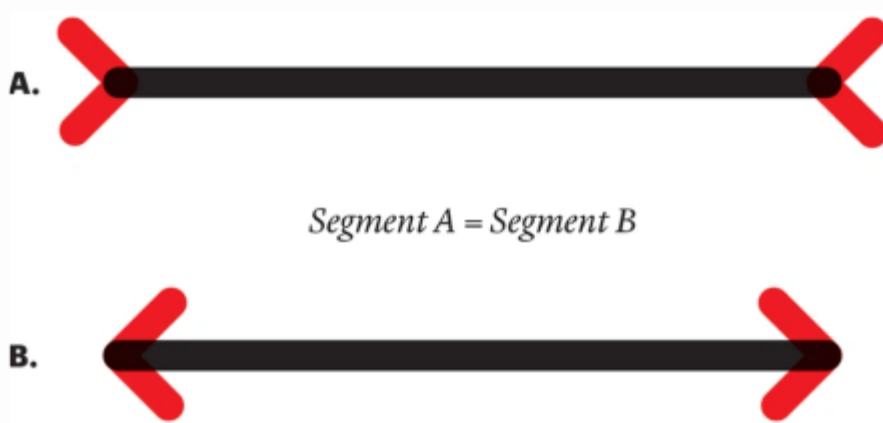
No matter what health insurance program the politicians settle on, Thaler argues policy makers must deal with people’s framing biases, making it as easy as possible to understand, including how to get in it. That may mean automatic enrollment, with individuals then allowed to opt out. This approach with paycheck savings programs has boosted the retirement prospects for millions. He has pushed this idea for desperately needed organ donation, saying drivers should be offered with their licenses an opt-out rather than an opt-in system.

Maybe we’ll tap this approach to maximize vaccinations for the good of all, if medical scientists develop a shot for Covid-19? People would get the jab, unless they can provide solid reasons to opt out.

Thaler would attack skyrocketing drug prices, in part, by nudging doctors to fess up to patients about pay they receive from Big Pharma for prescribing medications or for giving speeches or consulting. Patients may want this 411 if doctors hype coronavirus drugs with light evidence for their effectiveness.

Thaler’s steps may sound modest. The bigger question may be this: Can behavioral economists and psychologists convince politicians not that reason and rationality prevail in the U.S. health care system but that the opposite holds: Americans spend roughly \$4 trillion, or 18% of the gross national product, on a system that produces some of the worst overall outcomes among Western industrialized nations. How irrational is that?

We can get big benefits from battling mental illusions and built-in biases



The Covid-19 pandemic has forced people around the planet into making difficult decisions about their lives. Many of us won’t confront

these kinds of choices until we or our loved ones are desperately ill or seriously injured. In doing so, we may want to maximize both our System 1 and System 2 thinking. But, as experts emphasize, external factors may force us to rely too much on cognitive biases and shortcuts.

That's because we must make decisions quickly during emotional circumstances. (Do we wear face coverings and go out for groceries while coronavirus deaths and infections haven't fallen much?) We're getting bombarded at the same time with too much information that also fails to be as clear as we might like. (Is Covid-19 a worry for young people and kids or just for older people?) We're also needing to retrieve salient stuff from hazy memory. (How is this pandemic different than what occurred with the flu in 1918, HIV-AIDS in the 1980s and 1990s, or outbreaks of SARS [Severe Acute Respiratory Syndrome], MERS [Middle East Respiratory Syndrome], or Ebola?) What ordinary people haven't frazzled their System 2 selves, trying to unscramble the coronavirus' mortality and infection rates or the ins-and-outs of antimalarial or antiviral drugs, from hydroxychloroquine to remdesivir?

The sad, stressed faces so many of us wear may not be so different from what could be found in more recent times in doctors' offices, clinics, and hospitals where patients with cancer, heart disease, or catastrophic injury are receiving care. They and their loved ones find themselves thrust into complicated and costly choices about drugs and treatments. They may hear conflicting views from highly trained specialists (and, yes, [it's good to get second and third opinions](#) about big and complex medical cases). They may learn about experimental approaches, and, even as they try to get atop a flood of information, they may find themselves falling deeper into a quandary about what to do. They also know their finances may be overtaxed, and the ill or injured patient may be running out of time.

Patients are owed the [fundamental right to informed consent](#). This means they must be told clearly and fully all the important facts they need to make an intelligent decision about what treatments to have, where to get them, and from whom. But even when doctors [invite patients and their loved ones into optimal shared decision-making about care](#), do non-medical people slip into [cognitive biases too readily](#)? Do they anchor their choices in the first strategy described to them by an impressive specialist? Do they fall back on an availability bias, deciding on a procedure or a drug just because it worked for others they may know?

Families and patients also, no matter what they may say, hold huge cognitive biases for what some clinicians criticize as esteem-based medicine versus evidence-based medicine. [Community hospitals across the country can provide excellent and affordable care](#) for many of us — most of the time. When our illnesses or injuries get severe, it's whoosh — many of us have spent long hours traveling across town to esteemed experts at that big, fancy academic medical center. There, we will count ourselves lucky if we see the great doctor and not one of many associates. We may wait longer and pay more. Do powerful [placebo effects](#) kick in?

The coronavirus is novel and we have [much to learn](#) about it. But experience has shown me and other attorneys in my law firm just how scary and new major injuries and illnesses can be for most of us. So, as we struggle with the global devastation of Covid-19 and with the individual tragedies tied to other diseases and debilitating injuries, maybe we can benefit by improving our responses, especially by dealing with our cognitive biases.

Kahneman has [written in moving fashion about his memorable collaboration](#) with Tversky. [They became fast friends](#), though strikingly different. Kahneman said Tversky made him laugh, while forcing him to be clearer and preciser. “Thinking, Fast and Slow” can be a fun and worthwhile read, incorporating illustrations of illusions (see above) and [quizzes and puzzles](#) — experiments the duo posed to each other and spent long hours testing. Thaler also has sought to make his work accessible and even fun, as readers may discover in his book “Nudge: Improving Decisions About Health, Wealth, and Happiness.”

For those who are interested and may have time while staying home during the pandemic, [online courses](#) —including [at nearby and well-known institutions](#) — also cover [cognitive biases](#). The topic may be studied at close community colleges, colleges, and universities once they return to more normality. Ben Yagoda, a noted writer and educator, reported on the [boom in classes, video games, and other instruction](#) on cognitive biases, as the topic has become more valued in higher education, research, business, and policy making.

Here’s a personal vote, too, for investing time and thought into our cognitive biases. They can keep us from getting to more important places in our work, politics, play, and lives. They can prevent us from meeting people, trying things that we would enjoy and from which we would benefit — except we are blocked by ways of thinking we may not have examined or be aware of, especially if cognitive biases harden into unacceptable bigotry, by race, class, gender, nationality, and sexual orientation. Our national discourse has hardened and coarsened, particularly as baser political partisans make extreme thinking and decisions routine. They appeal to prejudices, by gut thought and reflex reaction — the worst System 1 biases.

Maybe if we all plumbed our own cognitive biases and could, even for moments, set them aside, rancorous disputes over health care and other crucial matters could progress. [Melvin Pollner, a late and great UCLA sociologist](#), theorized about “[mundane reasoning](#)” and “[reality disjunctures](#).” He argued that around the globe, people construct realities that can clash in disjunctures, resulting in damaging deadlocks. He observed life with tribal mystics, psychiatric patients, and petty traffic cases. He argued that people might not be talked out of their “realities.” But they might clamber down from fixed positions, if discussing perceptions: The state and a defendant in traffic court will disagree, emphatically, on whether speeding occurred. But getting them to think about a faulty speedometer may ensure a case does not derail. Could laying out our cognitive biases with each other lead to better dialogue on difficult issues?

Kahneman's research on cognitive biases also turned him to human happiness. He argues that, contrary to economic rationalists, people need organizations and governments that protect them and help them to make better choices, including perhaps steering them away from craven materialism. He wrote about colleagues' introducing the term "miswanting," used to "describe bad choices that arise from errors of affective forecasting. This word deserves to be in everyday language. The focusing illusion ... is a rich source of miswanting. In particular, it makes us prone to exaggerate the effect of significant purchases or changed circumstances on our future well-being ... The focusing illusion creates a bias in favor of goods and experiences that are initially exciting, even if they will eventually lose their appeal."

That's a good thought. And here's one more: I'm hoping you and yours think clearly, stay safe and well, and that you have great health and well-being throughout 2020 and beyond!

Credits: Photo, above, boy with puzzle, @Kelly Sikkeman, Unsplash. Illustration, above, Müller-Lyer illusion, Atlantic magazine.

A dive into shark tales reveals much about our shaky assessment of risk



With Memorial Day marking the start of summer, and with public health restrictions relaxing so more people may be flocking to the beaches, a non-coronavirus hazard — at least a perceived danger — likely will get lots of seasonal attention: shark attacks.

Sure, the "Jaws" movies may make ocean-goers wary as they hear the film's music thrumming in their heads when wading. But, by the calculation of at least one Florida ocean institution, here's an

Where's the Good Data?



How much has Covid-19 changed the world? Just a blink ago, [Big Data dominated the buzz as the purported gold of the future](#). Now, in dealing with the pandemic and responses to it, the emphasis has changed. Now the clamor is: Just give us the Good Data* and use it right.

As leaders of [groups that specialize in statistics](#) at a well-known think tank observed:

"Technological developments — which have increased real-time data and the ability to share it — are creating an overabundance of information, making it easier to draw [spurious conclusions](#). The six of us lead research centers at the nonprofit, nonpartisan RAND Corporation that develop statistical methods and models to use large-scale data and incorporate uncertainties into decision

important assessment to keep in mind: [The chances of getting attacked by a shark in U.S. waters is roughly 1 in 3.7 million \(a figure calculated based on U.S. population, life spans, and incidents recorded.\)](#)

Feel safer? Besides cognitive biases, experts know that too many people have poor capacities to make sound assessments of their risks in life — as Las Vegas, car loans, and stock investments illustrate painfully for too many of us.

When it comes to many medical-related decisions, I've [written before about the high worth](#) of the “number needed to treat” or [NNT](#), and experts keep [expanding its utility](#) to help patients understand risks with prescription medications and procedures.

With the shambolic federal response to the Covid-19 pandemic, however, Americans have been left alone to assess a torrent of information, check their emotions and cognitive biases, and make tough choices on next steps. Even while heeding state and local authorities, individuals will be deciding: How risky is it to venture out more in public — and how best to do it?

[David Ropeik](#), a former journalist who has taught risk assessment at Harvard's public health school, has [offered expert guidance before on how patients might evaluate](#) health risks. They may need to consider factors such as how much they trust their decision-making information, as well as their own senses of dread and control. He says that research finds people are swayed when they think harms are nearer, affecting people they know, and are unfamiliar or uncertain.

Maryanne Vandervelde, an author and Seattle psychology Ph.D., [wrote in the Wall Street Journal that Americans may wish](#) to try simple exercises to assist them with their coronavirus risk assessment: She says people may try, quickly and in a written form, to “imagine what we truly want,” and develop “strategies that might get us closer to these goals.” They may wish to “pick a framework for the overall kind of life we want to live during this pandemic ...[to help] clarify what experiences and satisfactions we are willing to give up in order to stay healthy, as well as how much safety we might be willing to risk in order to live a more full and rewarding life.”

processes ... What we know from such work is that situations like this are rife with statistical pitfalls. Those analyzing Covid-19 data to make policy recommendations — and journalists who report on research findings to the public — must discern when analyses have fallen into these traps.

"The need for immediate answers in the face of severe public health and economic distress may create a temptation to relax statistical standards. But urgency should not preclude expert analysis and honest assessments of uncertainty. Mistaken assumptions could lead to counterproductive actions."

Neil Irwin, an economics expert writing for the New York Times, has cautioned that craziness may seize the public discourse in the days ahead as political partisans spin [coronavirus-affected data](#). [This may get bad as the election nears and the economy](#) becomes an even more acute concern. He reported:

"Did you hear about the booming air travel industry? It's up 123% in just the last month! Technically, that's an accurate number. Over the seven days ended Sunday, an average of 212,580 people went through U.S. [airport security checkpoints](#), up from 95,161 in the week ended April 17.

"But of course, that is all wrong if you know anything about the underlying reality of the air travel industry. This time a year ago, 2.4 million people a day went through those same checkpoints. By any reasonable measure, these remain disastrous times for air traffic. It's just that the shutdown in March and early April made even the slight recovery that has taken place seem like an enormous surge in percentage terms. Get ready for the same effect to apply to all sorts of numbers — most notably with economic data."

Wizards with health statistics have been baffled by [the numbers bungling that has afflicted multiple states and the once highly respected experts at the federal Centers for Disease Control and Prevention](#). For inexplicable reasons (that's being generous), the agency and states have mixed up reported information on two different types of coronavirus tests — a swab exam to see if individuals are infected now, and a blood antibody procedure that shows if patients have been

Growing information about the coronavirus also is [giving the public a better idea of factors](#) — some of them sad — to consider for their lives and livelihoods in the pandemic, including their: age, gender, race, and underlying health conditions, such as obesity, diabetes, high blood pressure, high blood cholesterol, and chronic respiratory issues including asthma.

It also may be helpful for us all to know that as the pandemic persists, [experts are focusing on “super spreader”](#) events and how settings, individuals, and timing may affect coronavirus infections and deaths. That’s put more [simply in a newspaper’s interesting list](#) of what’s known about Covid-19 and spots many of us likely might visit in more normal times.

Photo credit: Sharks and boat @Jared Rice, Unsplash

exposed to or had Covid-19 in the past.

The flawed data that results from comingling the tests throws off expert efforts to understand the severity of the pandemic, notably how many people have it and how infectious it is. It fouls up efforts to know how deadly the virus has been. Officials rely on these calculations to make crucial decisions, such as how quickly to ease public health restrictions that keep people at home, employees off work, and youngsters out of school.

Of course, by fudging this data, experts also can abet politicians’ boasts about improvements in what has been a dismal national testing effort.

At the White House, it may be distressing for Americans to see [dismissive attacks on the accuracy of nationwide coronavirus information](#) — from how it is collected to its analysis and dissemination. That is mighty strange to see and raises fundamental management issues, considering how agencies like the CDC and others report to Cabinet officers and the president.

Other institutions, from almost the start of the pandemic, have stepped up and have developed followings for the credibility of their information on Covid-19. Those institutions include: [Johns Hopkins](#), the [New York Times](#), [Washington Post](#), [Los Angeles Times](#), and a [consortium of news organizations](#) that includes CNN, Vox, ProPublica, the Wall Street Journal and the Atlantic magazine.

They deserve praise for their work, especially or their transparency in sharing their data publicly. But the huge hunger for their reliable information suggests that Americans concerned about our democracy might ask when more normal times resume: [Why isn’t the U.S. government the source for trustworthy stuff?](#)

**Yes, the picture above of “Mr. Data,” the Star Trek character portrayed by Bret Spiner, may test your expectancy bias — the subconscious influence that a researcher can have on the subjects in a study.*

Recent Health Care Blog Posts

Here are some recent posts on our patient safety blog that might interest you:

- Is the coronavirus's staggering toll on patients in nursing homes something to be written off as a force of nature for which humans bear little fault? Or are there lessons to be learned about shortcomings that could help preserve lives the next time? [News media reports keep unearthing institutional misery and a blindness to the suffering of the aged, chronically ill, and seriously injured](#). Bad luck, shrug facility owners and operators, seemingly joined in by regulators and some politicians. Couldn't be helped. Did the best we could. In fact, investigations — by journalists and watchdogs — have shown the toll taken by nursing homes' sloppy disregard for infection control, press for profits, and unacceptable paralysis as situations headed south.
- Although the Covid-19 pandemic may be opening more and more Americans' eyes to the harsh effects of the country's economic and racial inequities, the [stark damage from the nation's health disparities can be plain to see](#) — in truly disheartening ways. Lizzie Presser, a reporter for the Pulitzer Prize-winning investigative site ProPublica, deserves high praise for her distressing article on "The Black Amputation Epidemic."
- Even as the Covid-19 pandemic shows the terrible toll inflicted on African Americans in the District of Columbia by health care disparities, city officials have announced they are advancing with a pricey plan to plug a giant hole in area medical services by helping to fund not one but [two new hospitals that will serve impoverished communities of color](#). The facilities will be in Wards 1 and 8 and will replace the Howard University Hospital and the United Medical Center (UMC) in Southeast D.C., Mayor Muriel Bowser has proposed.
- The [Buckeyes have become the latest in a sad, expanding list of colleges, universities, and other institutions to reach big settlements](#) over students' long sexual abuse by twisted medical staffers, with Ohio State University agreeing to pay \$41 million to 162 male athletes for two decades of molestation and mistreatment by a team doctor. After years of complaints and an outside investigation by a prominent law firm, OSU fessed up and said it should have done far more to listen to aggrieved wrestlers, football players, and others as they told coaches and other adults about the perverse conduct about assaults committed by Richard H. Strauss, a doctor to various men's sports teams and professor from 1978 to 1998. He died by suicide in 2005
- The Covid-19 pandemic has kept most Americans locked down for weeks now, but the tight public health measures, alas, haven't slashed as much as might be hoped two leading, non-virus causes of harms to people: [reckless driving and senseless violence](#), especially with guns. The road mayhem is a real head-scratcher, as a frequent factor in fender-benders and motorist frustration has all but vanished: traffic congestion

HERE'S TO A HEALTHY 2020!

Sincerely,

A handwritten signature in black ink that reads "Patrick Malone". The signature is written in a cursive style with a large initial "P" and a long, sweeping underline.

Patrick Malone

Patrick Malone & Associates

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