The math of rightwing populism: Easy answers + confidence = reassuring certainty

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Rightwing populists appear to be enjoying a surge across the western world. For those who don't support these parties, their appeal can be baffling and unsettling. They appear to play on people's fears and offer

somewhat trivial answers to difficult issues.

But the mathematics of human inference and cognition can help us understand what makes this a winning formula.

Because politics largely boils down to communication, the mathematics of communication theory can help us understand why voters are drawn to parties that use simple, loud messaging in their campaigning—as well as how they get away with using highly questionable messaging. Traditionally, this is the theory that enables us to listen to radio broadcasts and make telephone calls. But American mathematician Norbert Wiener went so far as to argue that social phenomena can only be understood via the theory of communication.

Wiener tried to explain different aspects of society by evoking a concept in science known as the second law of thermodynamics. In essence, this law says that over time, order will turn into disorder, or, in the present context, reliable information will be overwhelmed by confusion, uncertainties and noise. In mathematics, the degree of disorder is often measured by a quantity called entropy, so the second law can be rephrased by saying that over time, and on average, entropy will increase.

One of Wiener's arguments is that as technologies for communication advance, people will circulate more and more inessential "noisy" information (think Twitter, Instagram and so on), which will overshadow facts and important ideas. This is becoming more pronounced with AI-generated disinformation.

The effect of the second law is significant in predicting the future form of society over a period of decades. But another aspect of communication theory also comes into play in the more immediate term.

When we analyze information about a topic of interest, we will reach a conclusion that leaves us, on average, with the smallest uncertainty about that topic. In other words, our thought process attempts to minimize entropy. This means, for instance, when two people with opposing views on a topic are presented with an article on that subject, they will often take away different interpretations of the same article, with each confirming the validity of their own initial view. The reason is simple: interpreting the article as questioning one's opinion will inevitably raise uncertainty.

In psychology, this effect is known as confirmation bias. It is often interpreted as an irrational or illogical trait of our behavior, but we now understand the science behind it by borrowing concepts from communication theory. I call this a "tenacious Bayesian" behavior because it follows from the Bayes theorem of probability theory, which tells us how we should update our perspectives of the world as we digest noisy or uncertain information.

A corollary of this is that if someone has a strong belief in one scenario which happens to represent a false reality, then even if factual information is in circulation, it will take a long time for that person to change their belief. This is because a conversion from one certainty to another typically (but not always) requires a path that traverses uncertainties we instinctively try to avoid.

Polarized society

When the tenacious Bayesian effect is combined with Wiener's second law, we can understand how society becomes polarized. The second law says there will be a lot of diverging information and noise around us, creating confusion and uncertainty. We are drawn to information that offers greater certainty, even if it is flawed.

For a binary issue, the greatest uncertainty happens when the two alternatives seem equally likely—and are therefore difficult to choose between. But for an individual person who believes in one of the two alternatives, the path of least uncertainty is to hold steady on that belief. So in a world in which any information can easily be disseminated far and wide but in which people are also immovable, society can easily be polarized.

Where are the leftwing populists?

If a society is maximally polarized, then we should find populists surging on both the left and right of the political spectrum. And yet that is not the case at the moment. The right is more dominant. The reason for this is, in part, that the left is not well-positioned to offer certainty. Why? Historically, socialism has rarely been implemented in running a country—not even the Soviet Union or China managed to implement it.

At least for now, the left (or centrists, for that matter) also seem a lot more cautious about knowingly offering unrealistic answers to complex problems. In contrast, the right offers (often false) certainty with confidence. It is not difficult to see that in a noisy environment, the loudest are heard the most.

Today's politics plays out against a backdrop of uncertainties that include wars in Ukraine and Gaza with little prospect of exit strategies in sight; the continued cost of living crisis; energy, food and water insecurity; migration; and so on. Above all, the impact of the climate crisis.

The answer to this uncertainty, according to rightwing populists, is to blame everything on outsiders. Remove migrants and all problems will be solved—and all uncertainties eradicated. True or false, the message is simple and clear.

In conveying this message, it is important to instill in the public an exaggerated fear of the impact of migration, so their message will give people a false sense of certainty. What if there are no outsiders? Then create one. Use the culture war to label the "experts" (judges, scholars, etc.) as the enemy of the people.

For populists to thrive, society needs to be divided so that people can feel certain about where they belong—and so that those on the opposing side of the argument can be ignored.

The problem, of course, is that there are rarely simple solutions to complex issues. Indeed, a political party campaigning for a tough migration policy but weak climate measures is arguably enabling mass migration on a scale unseen in modern history, because climate change will make many parts of the world uninhabitable.

Wiener was already arguing in 1950 that we will pay the price for our actions at a time when it is most inconvenient to do so. Whatever needs to be done to solve complex societal issues, those who wish to implement what they believe are the right measures need to be aware that they have to win an election to do that—and that voters respond to simple and positive messages that will reduce the uncertainties hanging over their thoughts.

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