

Quantum physics can help explain much of the world's suffering

Quantum physics is the science that describes nature at its smallest atomic levels. But tiny subatomic happenings can have huge effects: Quantum theory describes the universe as one giant entangled system, where what happens in one corner of the world can simultaneously effect something else across the globe. While physically separate, humans and the world they live in are fundamentally inseparable, according to a quantum model of the universe.

It is therefore both unsurprising and yet paradoxical that populism—a political movement that supports the rights and power of ordinary citizens against a ruling elite—has sprung up across the globe. Unsurprising because a quantum perspective would tell us that a populist movement in one country could directly impact, even cause, one in another. And paradoxical because today's populism is dividing peoples and states with an “us” versus “them” mentality, even though the basis of quantum physics—the very phenomenon that allows us to explain this current wave of populism—supports a holistic vision of the world.

Over the past decade, populist political parties have gained power in very different countries: the United States, with the surprise election of president Donald Trump; the UK, where the Independence Party campaigned successfully for pulling the country out of the European Union; Italy, where two [anti-establishment groups](#), the Five Star Movement and the League, are now trying to form a coalition government; and Venezuela, with president Nicolás Maduro continuing to cling to power even though his country's [economy is failing](#).

Whether from the left or right, Europe or Latin America, all of these populist leaders have a few things in common. They utilize bombastic fear-mongering in their speech, place a high priority on security, and, consequently, are adamantly opposed to open borders.

But borders like these can't exist in quantum physics. [Quantum entanglement theory](#) states that the parts of a combined system are not fully separable because their properties are dependent on their relationship to the whole system. This was proven by the “[Bell experiments](#),” developed by the Irish physicist John Bell in 1964, which tested the viability of “local realism.” This is the principle that:

1. the world exists independent of the human mind, and
2. no causal influence can spread faster than the speed of light.

The Bell experiments found that local realism is not a basic feature of the universe. Rather, quantum physics, with its property of entanglement, is. This property literally means that when scientists measure the spin (an intrinsic form of angular momentum) of one entangled particle that is part of an entangled pair, it instantaneously induces a state change in the other particle. All particles have at some point in time been entangled, meaning the universe is one big quantum system in which everything is correlated.

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In this sense, the rise of populism in disparate locations at approximately the same time follows the laws of quantum physics. For example, people with populist inclinations in the US could have been on the fence about whether to vote for Donald Trump or not in the November 2016 presidential election—until seeing the populist UK Independence Party win the Brexit referendum in June 2016, which could have reaffirmed their beliefs in certain populist ideals. What transpired in one nation across the Atlantic five months prior to the US presidential election very likely impacted the choices of some voters and, thus, the outcome of that election. These kinds of election results from Brexit to Brazil have continued to compound in the past few years.

This is also true of the rise of terrorism. From [al Qaeda](#) in the Arabian Peninsula to [al Shabaab](#) in Somalia, and from the [Islamic State](#) and its affiliates spread out across the globe to [far-right terrorism](#) in Europe and the United States, the development and distribution of terrorists throughout the 2000s has followed quantum entanglement qualities.

In fact, though they may not know it, quantum entanglement is the model terrorists build themselves on. A terrorist group is not confined to one geographical location, and it proliferates partly through lone wolf attacks, in which an individual commits an act of terror while typically pledging allegiance to a particular terrorist group. For example, a German citizen who sympathizes with the Islamic State in Iraq and Syria can decide—either after direct contact with a member of the group or simple observation of the group's ideologies and practices—to launch a terror attack on his or her homeland, thousands of miles away from the epicenter of the terror group and potentially without any direct contact with its members. This is only possible in an entangled quantum system, in which two or more entities in an entangled pair have a direct, though non-local, impact on one another.

A concrete example of this correlation is the multiple lone-wolf attacks in Germany in 2016. A German man killed one person and injured three others in a [knife attack](#) at a train station near Munich in May 2016. In July that year, nine people were [killed in Munich](#) by an 18-year-old gunman with dual German and Iranian nationality. Less than six months later, an asylum seeker from Tunisia who had been rejected in Germany drove a truck through a [Christmas market in Berlin](#), killing 12 people and injuring nearly 50 others.

Just as terrorism and populism act in their own entangled systems, they also act as two parts of a joint entangled system: Terrorist attacks fuel populist rhetoric, particularly about closing borders, and that rhetoric angers those who feel they are being discriminated against for their ethnicity or religion, who then commit further terrorists attacks.

But tougher immigration laws and erecting border walls, such as president Trump's proposed wall with Mexico, are solutions based on the misguided notion that quantum entanglement is not applicable on a large-scale. Walls and laws can't break our interconnectivity on a quantum scale.

A solution to the atrocities of terrorism should therefore first entail an understanding and acceptance of the enmeshed nature of our universe: the fundamentals of quantum theory.

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