'Democratic peace' may not prevent international conflict
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Using a new technique to analyze 52 years of international conflict, researchers suggest that there may be no such thing as a "democratic peace."

In addition, a model developed with this new technique was found to predict international conflict five and even ten years in the future better than any existing model.

Democratic peace is the widely held theory that democracies are less likely to go to war against each other than countries with other types of government.

In the new study, researchers found that economic trade relationships and participation in international governmental organizations play a strong role in keeping the peace among countries. But democracy? Not so much.

"That's a startling finding because the value of joint democracy in preventing war is what we thought was the closest thing to a law in international politics," said Skyler Cranmer, lead author of the study and The Carter Phillips and Sue Henry Associate Professor of Political Science at The Ohio State University.

"There's been empirical research supporting this theory for the past 50 years. Even U.S. presidents have touted the value of a democratic peace, but it doesn't seem to hold up, at least the way we looked at it."

The study appears this week in the *Proceedings of the National Academy of Sciences*. Cranmer's co-authors are Elizabeth Menninga, assistant professor of political science at the University of Iowa and recent Ph.D. graduate in political science at the University of North Carolina at Chapel Hill; and Peter Mucha, professor of mathematics in the College of Arts and Sciences at UNC-Chapel Hill.

Along with casting doubt on democratic peace theory, the study also developed a new way to predict levels of international conflict that is more accurate than any previous model. The researchers used a new technique to examine all violent conflicts between countries during the period of 1948 to 2000. The result was a model of international conflict that was 47 percent better than the standard model at predicting the level of worldwide conflict five and even 10 years into the future.

"The Department of Defense needs to know at least that far in advance what the world situation is going to be like, because it can't react in a year to changes in levels of conflict due to bureaucratic inertia and its longer funding cycle," Cranmer said.

"Being able to have a sense of the global climate in five or 10 years would be extremely helpful from a policy and planning perspective."

The researchers started the study with a famous idea posed by the philosopher Immanuel Kant back in 1795: that the world could enjoy a "perpetual
peace" if countries would become more interconnected in three ways. The modern interpretation of those three ways is: Through the spread of democratic states, more economic interdependence through trade, and more joint membership in international governmental organizations, or IGOs. (Modern examples range from regional agricultural organizations to the European Union and NATO.)

Many studies have looked at how these three elements, either together or separately, affect conflict between countries. But even when they were considered together, the impact of the three individual factors were considered additively.

What makes this study unique is that the researchers were the first to use a new statistical measure developed by Mucha - called multislice community detection—to analyze all three of these components collectively. They were able to examine, for the first time, how each component was related to each other. For example, how membership in IGOs affected trade agreements between counties, and vice versa.

"When we looked at these networks holistically, we found communities of countries that are similar not only in terms of their IGO memberships, or trade agreements, or in their democratic governments, but in terms of all these three elements together," Cranmer said.

The separation between such communities in the world is what the researchers called "Kantian Fractionalization."

"You might think of it as the number of cliques the world is split up into and how easy it is to isolate those cliques from one another," Cranmer said.

But the deeper the separation between communities or cliques there are in the world at one time, the more dangerous the world becomes.

By measuring these communities in the world at one specific time, the researchers could predict with better accuracy than ever before how many violent conflicts would occur in one, 5 or 10 years in the future. This study had a broad definition of conflict: any military skirmish where one country deliberately kills a member of another country. Many of the conflicts in this study were relatively small, but it also includes major wars.

Predicting one year into the future, this new model was 13 percent better than the standard model at predicting levels of worldwide conflict. But it was 47 percent better at predicting conflict 5 and 10 years into the future.

"We measured how fragile these networks are to breaking up into communities," Mucha said. "Remarkably, that fragility in a mathematical sense has a clear political consequence in terms of increased conflict."

The linear relationship between higher levels of Kantian fractionalization and more future conflict was so strong that Cranmer couldn't believe it at first.

"I threw up my hands in frustration when I first saw the results. I thought we surely must have made a mistake because you almost never see the kind of clean, linear relationship that we found outside of textbooks," Cranmer said.

"But we confirmed that there is this strong relationship."

More information: Kantian fractionalization predicts the conflict propensity of the international system, Skyler J. Cranmer, DOI: 10.1073/pnas.1509423112

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