

Want people to work together? Familiarity, ability to pick partners could be key

January 16 2018, by Misti Crane



Credit: CC0 Public Domain

The key to getting people to work together effectively could be giving them the flexibility to choose their collaborators and the comfort of working with established contacts, new research suggests.

For starters, it's important to recognize that cooperation between humans makes no sense, said David Melamed, an assistant professor of sociology at The Ohio State University and lead author of the study, which appears in the journal *Proceedings of the National Academy of Sciences*.

"From an evolutionary perspective, cooperation shouldn't exist between people - you always do better by not cooperating because then people can't rip you off or take advantage of you," Melamed said.

"Especially in a one-time interaction, it's essentially paying a cost for someone else to benefit, and researchers have been working for a long time to understand why people evolved to work together."

In this study, Melamed and his co-authors aimed to uncover what conditions led people to collaborate most willingly.

To answer their questions, they found participants through the Amazon Mechanical Turk website - a service that allows researchers and others to hire or recruit people from around the world for a variety of purposes. For this study, all participants were from the United States.

Those who agreed to participate played online games in which each player started out with 1,000 monetary units that translated to \$1 in real money that they could pocket. If one player agreed to pay another player 50 monetary units, that second person would actually acquire 100 units.

"So, if you essentially agreed to give up five cents, someone else gained 10 cents," Melamed said.

Each of the 16-round games examined in the study included about 25 participants, some of whom participated in multiple games with different scenarios. In all, 810 people participated in the research.

Some of the games generated random networks, where certain people could interact. Others included clustered networks, in which a small group had multiple connections - an arrangement that was designed to mimic real life, where humans often run in packs socially and at work.

And the networks were either static or dynamic. In static networks, a player could interact only with the assigned partners for the duration. In the dynamic networks, participants could cut ties with another player and form new connections.

Furthermore, some of the games included reputation information. Participants were labeled based on their history of willingness to share money. The idea was to test whether those known to collaborate were favored by other players based on reputation - a factor shown in previous research to play a significant role in whether a person is likely to partner with another.

Melamed and his research partners were surprised to find that reputation played no role in collaboration in this study. The findings might have departed from prior studies because of the difference in size and study design, he said, explaining that much of the previous work in this area has been conducted in groups of 100 or fewer and mostly involved student subjects. The Turk network used for the new study has been shown to be representative of the U.S. population in terms of age, race and other factors, Melamed said, and introduced players who had no previous connections.

Collaboration rates overall were high - and highest when the [participants](#) were operating in clusters and had the ability to drop a partner in favor

of another.

"What really seems to matter is the ability to alter the structure of a [network](#)," Melamed said. "And the pattern of relationships also made a difference. Those in a known cluster with multiple connections collaborated more, which seems intuitive if you think about how we interact in the real world."

The findings from this study could have important implications in a variety of settings, including the workplace and the battlefield, Melamed said.

"Applying what we learned could help encourage cooperation," he said.

The U.S. Army, which supported the study, could use this type of information to better develop strong, cooperative teams in the field, Melamed said, adding that the armed forces could also use the science to seek ways to undermine enemy forces.

More information: David Melamed et al., "Cooperation, clustering, and assortative mixing in dynamic networks," *PNAS* (2018).

www.pnas.org/cgi/doi/10.1073/pnas.1715357115

Provided by The Ohio State University

Citation: Want people to work together? Familiarity, ability to pick partners could be key (2018, January 16) retrieved 4 May 2024 from <https://phys.org/news/2018-01-people-familiarity-ability-partners-key.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.