

To enhance creativity, keep your research team fresh

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The data-driven analysis supports the notion that a ‘good’ society - valuing diversity, tolerance and openness - may also be a ‘productive’ society. Credit: CC0 Public Domain

Teamwork is becoming increasingly common in modern science. In this context, the effect of different characteristics of a team on its research performance has been studied extensively. Various factors such as team size, number of countries involved, universities, disciplines, and workload distribution have been found to have a significant contribution on the paper's role in advancing science.

The question of how the freshness of the team influences its research performance, however, has not been studied systematically. A research team may consist of some researchers who haven't worked with each other before, resulting in a freshness of the team. On the contrary, authors of a paper who have already collaborated can be regarded as an old team. To date little is known regarding the effect of the freshness of the team on advancing science.

In a paper recently published in *Nature Human Behaviour*, network scientists Prof. An Zeng, of Beijing Normal University and Prof. Shlomo Havlin, of the Department of Physics at Bar-Ilan University, and their colleagues address the effect of team freshness on the originality and multidisciplinary impact of the produced work, by systematically investigating prior collaboration relations between [team members](#). They develop the concept of team freshness of a paper and define it as the fraction of team members that have not collaborated earlier with other team members. Their study reveals that papers of fresher teams are significantly more effective than papers of older teams in creating studies of higher originality and greater multidisciplinary impact. The effect is found to be even more prominent in larger teams. The results also suggest that having new team members is more significant than new collaboration relations in increasing the originality and impact diversity of the resultant papers. Finally, they studied the effect of career [freshness](#) of team members before joining the team, finding that the younger the team, the higher the originality and impact diversity of the produced studies. In summary, research of a fresh team is related to

better creativity.

The findings in this paper may have some [practical applications](#) in stimulating more original and multidisciplinary research works. Funders and [decision makers](#) could encourage scientists forming fresh teams in research. Scientists themselves should also seize opportunities to interact with new colleagues for future collaboration as a new team.

More information: An Zeng et al, Fresh teams are associated with original and multidisciplinary research, *Nature Human Behaviour* (2021). [DOI: 10.1038/s41562-021-01084-x](https://doi.org/10.1038/s41562-021-01084-x)

Provided by Bar-Ilan University

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