Culturally diverse teams may require more central coordination than others

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Over the last 50 years organisations have changed dramatically but we have yet to understand how these changes affect organisational performance. One of the major changes was away from centralised decision-making and hierarchies and towards teamwork. During the same time organisations have grown to be more diverse. It is now more common than before that people from different cultures work together as teams. This has sparked the debate about how cultural diversity affects the performance of teams in organisations.

Two main lines of argument have since developed: _First_, there is the camp that argues that cultural diversity brings benefits to teams. It may be associated with greater differences in information, knowledge, and perspectives, which should enhance a team's creative process and problem solving capability. _On the other hand_, cultural diversity may cause group members to think of each other in terms of us versus them. This may undermine group performance because of peoples' distrust and prejudice of unfamiliar others.

Given these two conflicting perspectives on cultural diversity in organisational teams, we wondered how diverse teams could reap the benefits of diversity while avoiding its pitfalls. To answer this question we turned to social network theory. This theory tries to understand how team members' interactions with each other influence team performance. Social network theory has previously been used to investigate the effects of team diversity on performance but we were amongst the first to ask the question how diverse teams need to organise their work to enhance their performance. In particular, we asked how people in these teams should exchange materials — such as information, texts, etc. —that they need in order to perform well.

The influence of a team's network structure on its performance has received comparatively little attention in contemporary network research but it was closely studied in a series of experimental network studies in the 1950s and 1960s at the MIT. A key finding to emerge was that centralised structures such as the "star" (in which the network is dominated by an especially central person—see Figure 1a) outperformed decentralized structures such as the "circle" (in which no person is particularly central — see Figure 1b). This is despite the fact that one can mathematically demonstrate that decentralised structures are more efficient in terms of the time needed to arrive at a solution.

Figure 1a: The 'Star'

Figure 1b: The 'Circle'

Note: A node represents a team member and a line between two nodes represent a work-exchange relationship.

Achieving the mathematically optimal solution, however, would have required team members to execute a complex sequence of information trades. Instead, the seemingly pervasive tendency in human (and many non-human) groups to centralise around one or a few individuals may make centralised networks easier for team members. Performance may be higher in centralised team structures because such structures enhance overall coordination by allowing complex information to be gathered and interpreted more quickly and efficiently than is possible in decentralised structures.

Centralised networks, however, may not be an unmitigated boon for teams. It may be that just as insufficient centralisation contributes to inefficiencies in the flow of information, excessive network centralisation contributes to an overburdening of the central individuals in the team and elicits the resentment of those relegated to the margins of the network. Indeed, we found that network centralisation increased team performance, measured as the grade of student project teams, up to a certain point after which it decreased its performance.

Importantly, we also found that for culturally diverse teams the 'sweet spot' was found at higher levels of centralisation. Thus, it seemed that culturally diverse teams required more coordination to perform well compared to their more homogeneous counterparts. This may be explained through the greater potential for disagreement and conflict in teams with high levels of national diversity.
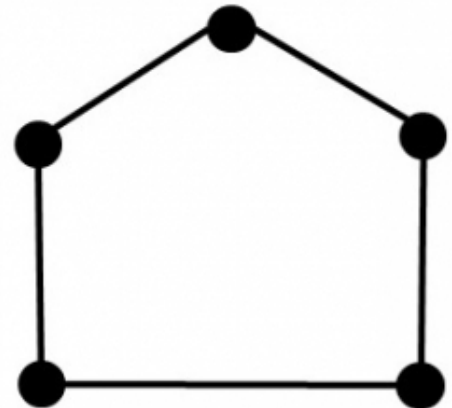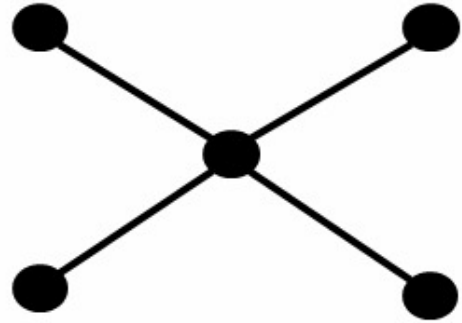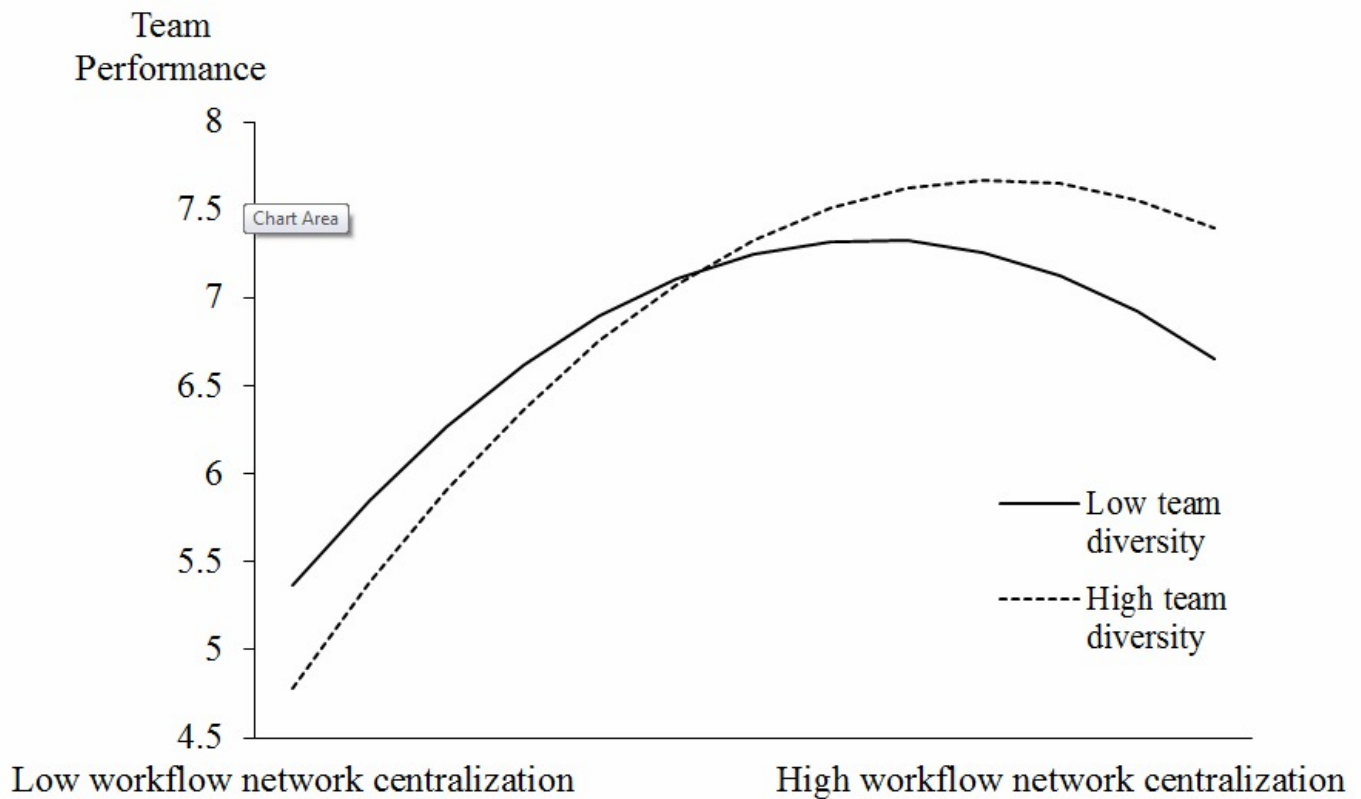
Figure 2: **Influence of workflow network centralization and team diversity on team performance**

Team Performance

Low workflow network centralization — High workflow network centralization

— Low team diversity
------ High team diversity

Surprisingly, when we asked team members how well they thought they were performing (before the students had received their grades) it was not centralisation that affected their confidence in their team's ability to perform well (i.e., **team potency**) but network density, which is the degree to which team members are involved in work-related interactions with each other. We found that teams thought they were performing better when many people were involved in work related exchanges (i.e., high density). Once again, culturally diverse teams required more density to think they were performing well. We explain this through diverse teams' higher potential for conflict and disagreement, which should increase their uncertainty about whether the team is unified. Seeing that everyone pulls their weight should fuel culturally diverse group members' confidence that their team is performing well.

Figure 3: **Influence of workflow network density and team diversity on team potency**
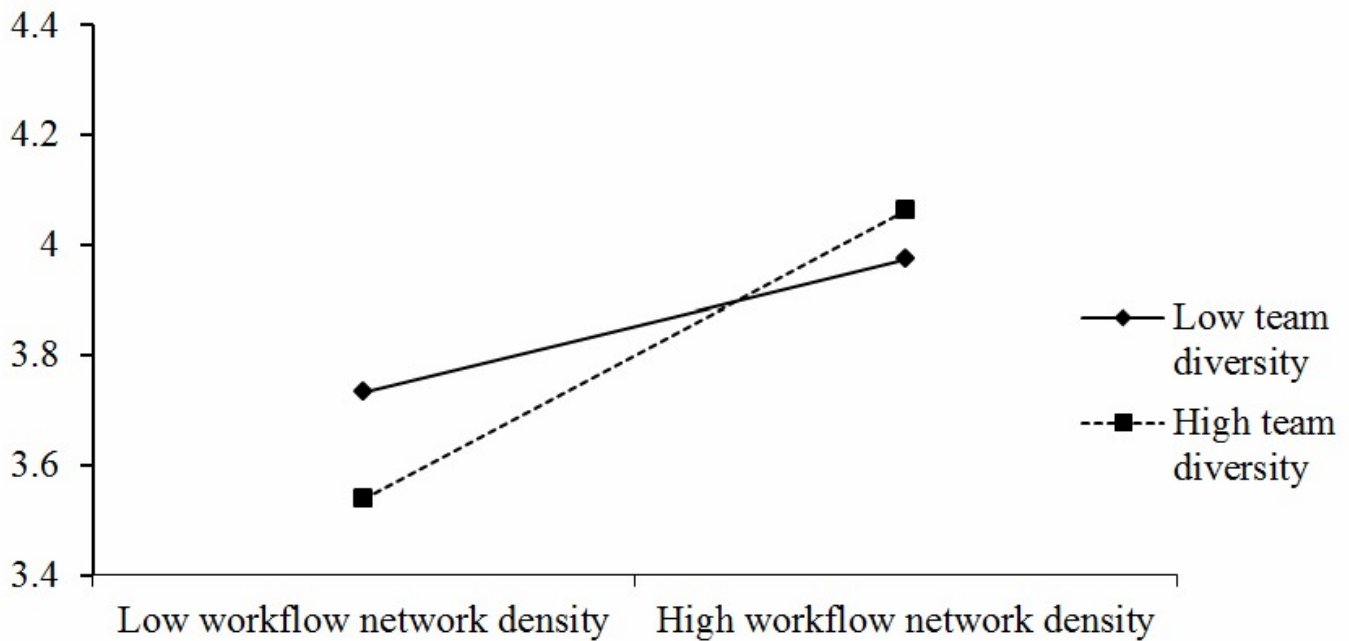
We started this research with the question in mind how culturally diverse teams need to best organize to perform well and our results show that it depends on how they organize their workflow. Coordination is important to enhance objective performance but too much reliance on one team member harms the team. On the other hand, team members' confidence in the performance of their team is also important to ensure ongoing satisfaction with the team. Therefore, it is important that all team members contribute to their team's goals. These things seem particularly important for diverse teams.

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Notes:

- This blog post is based on the authors' paper Structuring for team success: The interactive effects of network structure and cultural diversity on team potency and performance, published in the journal Organizational Behavior and Human Decision Processes, Vol 124, Issue 2, Pgs 245-255, (July 2014)

- *The post gives the views of the authors, and not the position of LSE Business Review or the London School of Economics.*

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Christian Tröster is an Assistant Professor of Leadership and Organisational Behavior who integrates insights from sociology and (social) psychology to research cross-cultural leadership and multinational team. He holds a PhD in management from the Rotterdam School of Management and is currently affiliated with the Kuehne Logistics University in Hamburg (Germany)

Ajay Mehra is a professor in the Gatton College of Business and a board member of LINKS, a center for social network analysis. His research focuses on the role of psychology in the perception and construction of social networks in the workplace. He has served on the editorial boards of the Academy of Management Review, Administrative Science Quarterly, and the British Journal of Management. He is passionate about dogs and rock climbing.
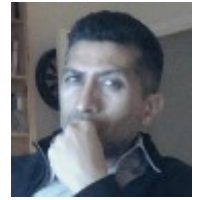
Daan van Knippenberg is Professor of Organizational Behavior at the Rotterdam School of Management, where he focuses on research, teaching, and consultancy in leadership, team performance, diversity, and creativity. These are also issues he publishes about in top scholarly outlets – outlets he also contributes to as an editor.