
CONFERENCE

# “Naming Things is Hard”

## A Guide to Naming Using Network Science

# Introduction

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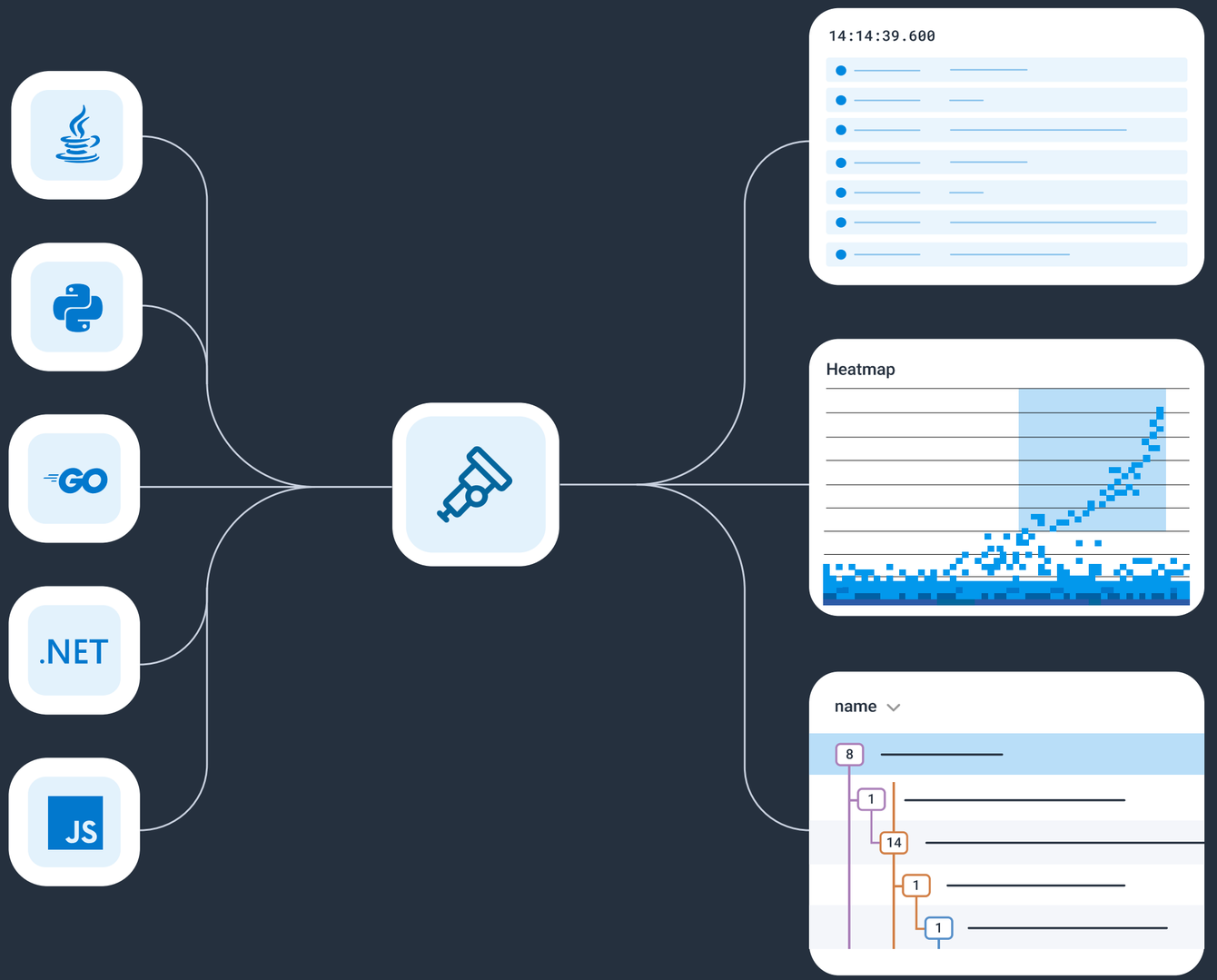
# What’s the Problem?

# OpenTelemetry

OTel is a super powerful standard and tools for creating robust telemetry. The people inhabiting socio-technical systems can use it to do good work.

However, its flexibility requires skills to wield effectively. Learning how best to organize themselves is one way to improve.



# What Resources Exist Today?

# OTel Blog: The Naming Series

## How to Name Your Spans

Author: Juraci Paixão Kröhling

OTel Blog Link

## How to Name Your Span Attributes

Author: Juraci Paixão Kröhling

OTel Blog Link

## How to Name Your Metrics

Author: Juraci Paixão Kröhling

OTel Blog Link

# Network Science Says…

Reagans, R. E., Volvovsky, H., & Burt, R. S. (2023). Shared language in the team network-performance association: Reconciling conflicting views of the network centralization effect on team performance. *Collective Intelligence*, *2*(3). https://doi.org/10.1177/26339137231199739

(Original work published 2023)



# Shared language in the team network-performance association: Reconciling conflicting views of the network centralization effect on team performance

Collective Intelligence
Volume 2:3: 1–18

DOI: 10.1177/26339137231199739
journals.sagepub.com/home/col
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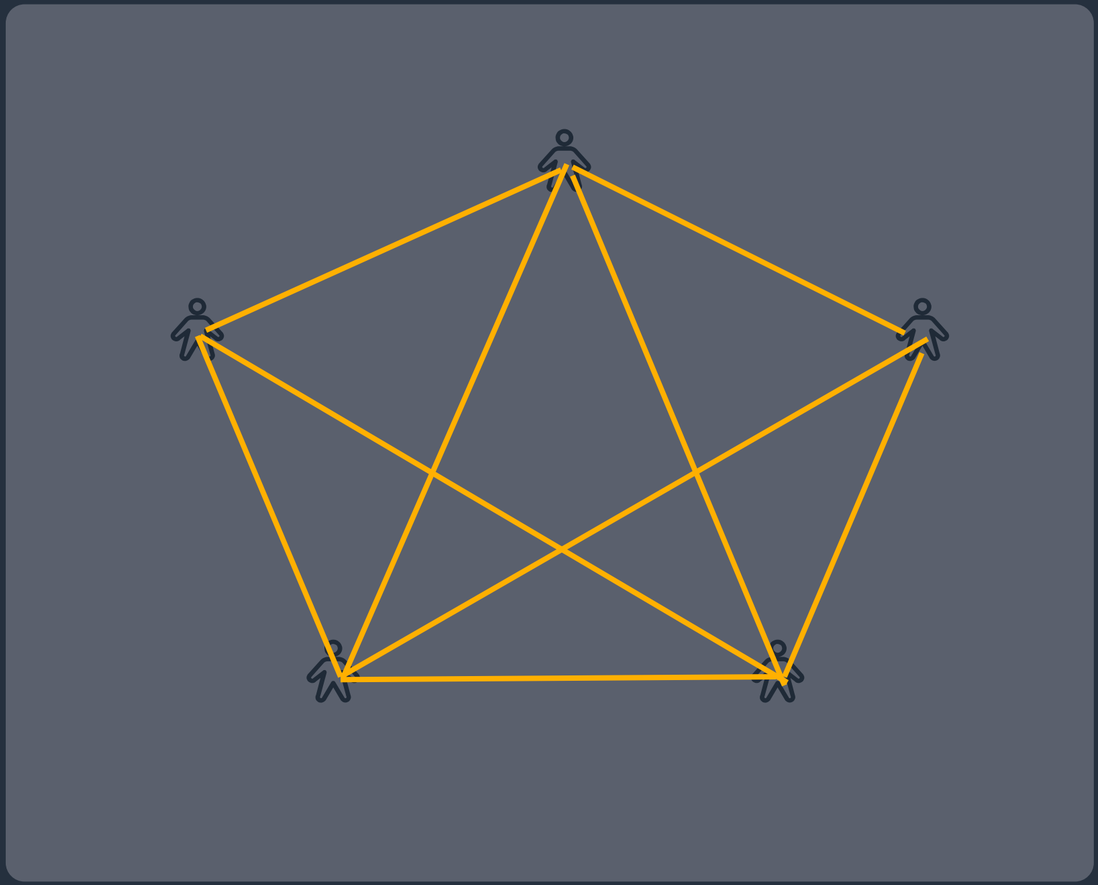
Bocconi University, Milan, Italy; University of Chicago, Chicago, IL, USA

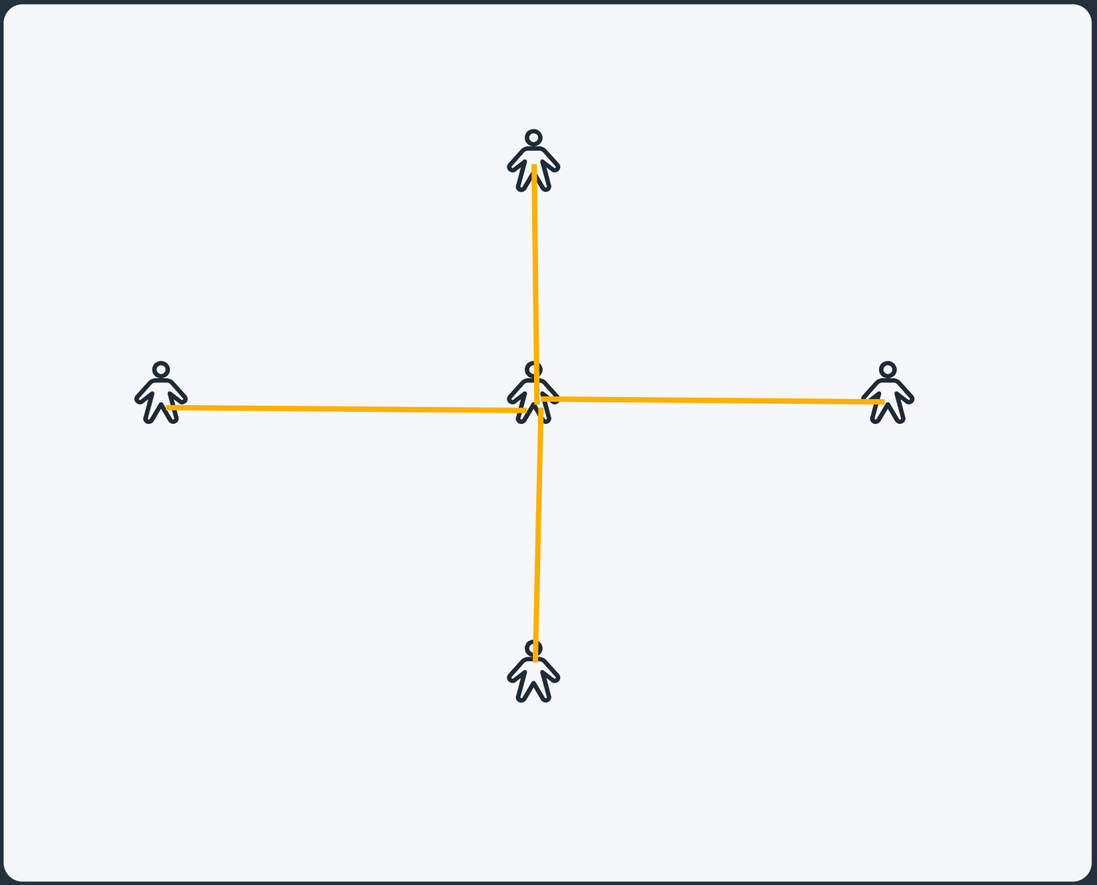
**Abstract**
We reconcile two conflicting views of the network centralization effect on team performance. In one view, a centralized network is problematic because it limits knowledge transfer, making it harder for team members to discover productive combinations of their know-how and expertise. In the alternative view, the limits on knowledge transfer encourage search and experimentation, leading to the discovery of more valuable ideas. We maintain the two sides are not opposed but reflect two distinct ways centralization can affect a team's shared problem-solving framework. The shared framework in our research is a shared language. We contend that team network centralization affects both how quickly a shared language emerges and the performance implications of the shared language that develops. We analyze the performance of 77 teams working to identify abstract symbols for 15 trials. Teams work under network conditions that vary with respect to centralization. Results indicate that centralized teams take longer to develop a shared language, but centralized teams also create a shared language that is more beneficial for performance. The findings also indicate that the highest performing teams are assigned to networks that combine elements of a centralized and a decentralized network.

**Keywords**
Teams, network, centralization, shared language, problem-solving, performance, learning

Network Science Says...

# The Paradox: How can these both be the best?





# Paradox Resolved: Disambiguate “the best”

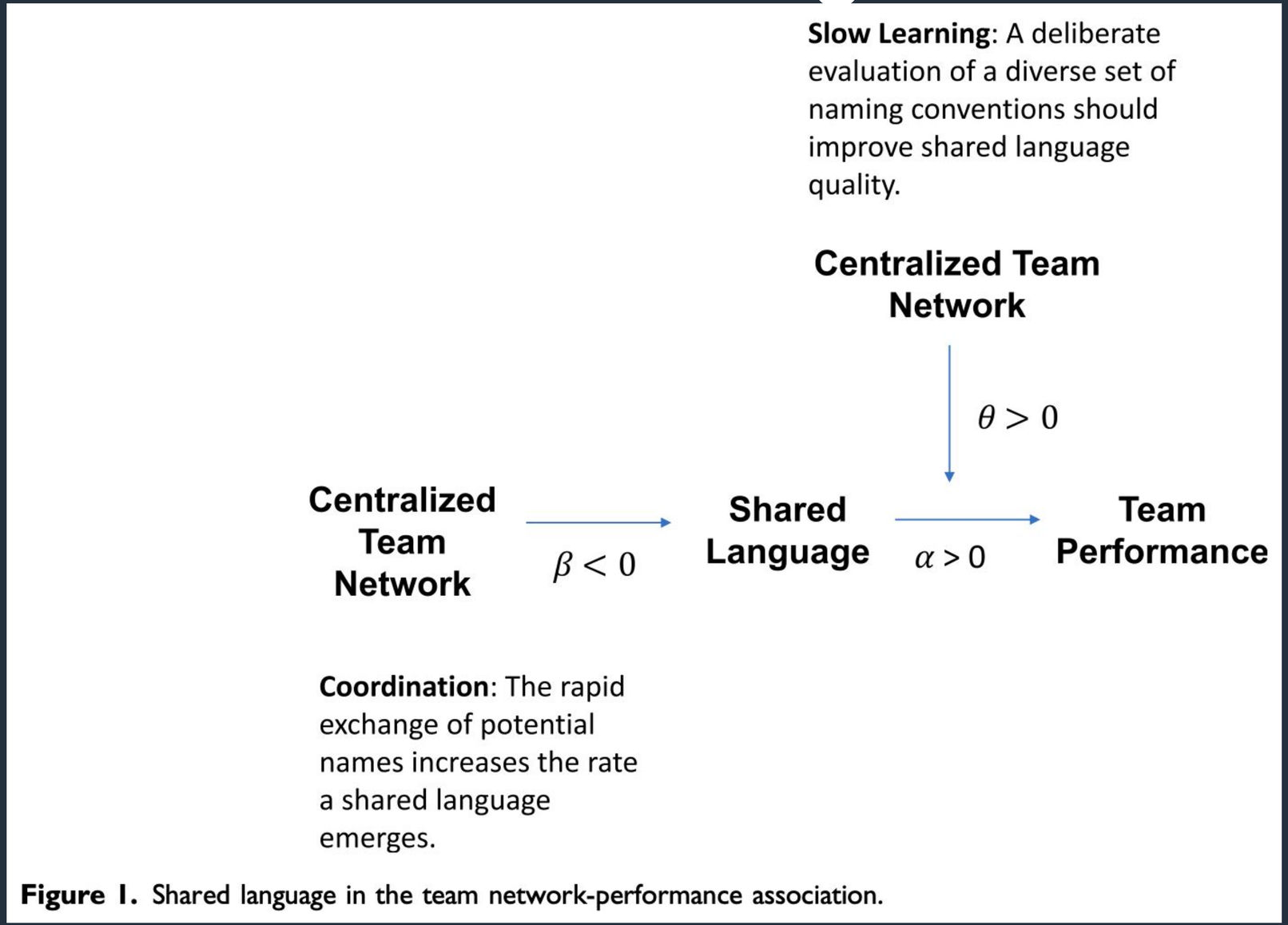



**Figure 1.** Shared language in the team network-performance association.

# Experiment Design: Name these tangrams

kicking, leg up, dancer, backpack, bird

priest, scholar, diploma, pointing left, robe

falling, ghost, flying, arms up, angel

kneeling, bunny, triangle arms, yoga, ghost

bunny, rabbit, bunny ears, chief, triangle

sitting, knees up, bean bag, rabbit, sitting man

**Figure 2.** Abstract symbols and descriptive names.

# Experiment Design: Compare network configs

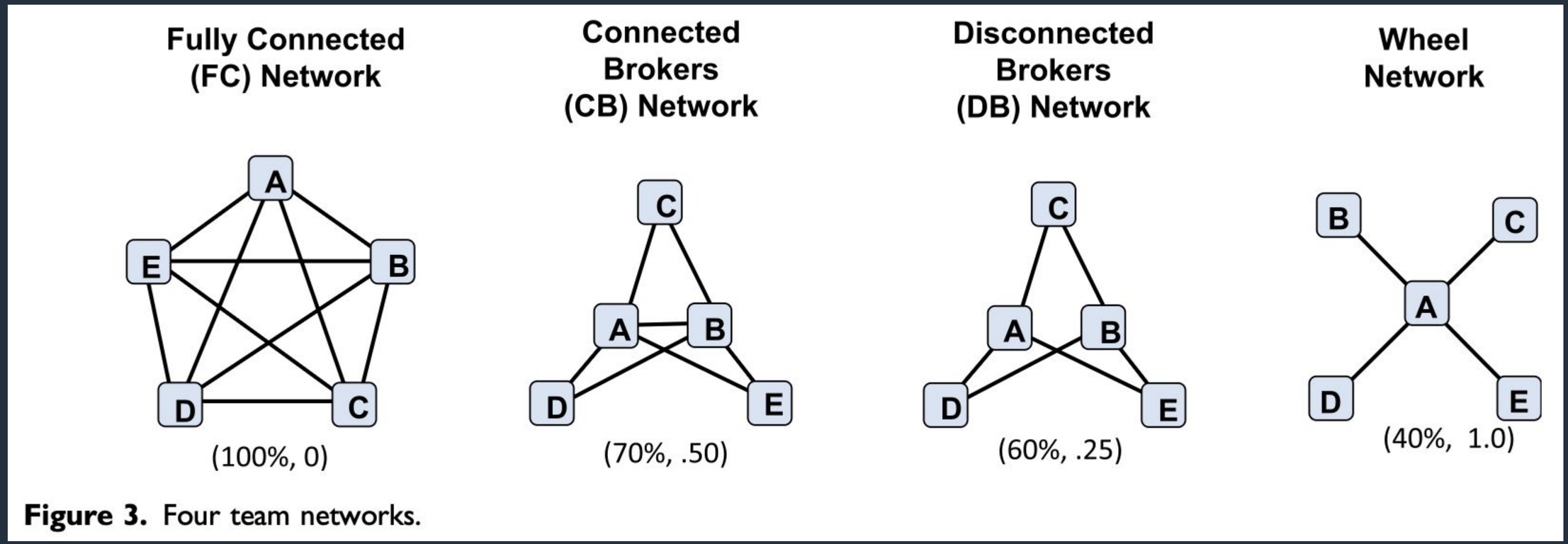



**Figure 3.** Four team networks.

# The Result: The CB Network is the best!

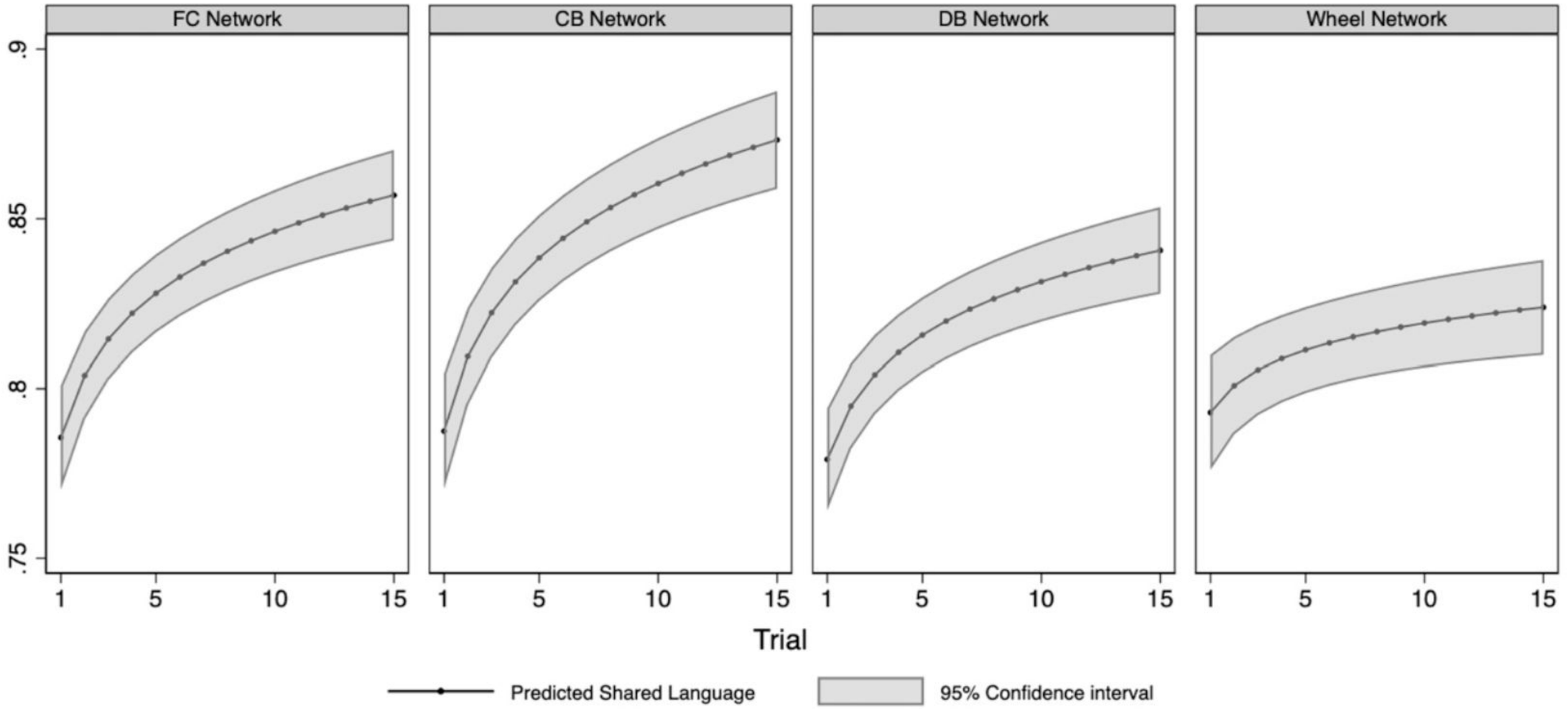



**Figure 7.** Emergence of shared language by network structure.

# The Result: The CB Network is the best!

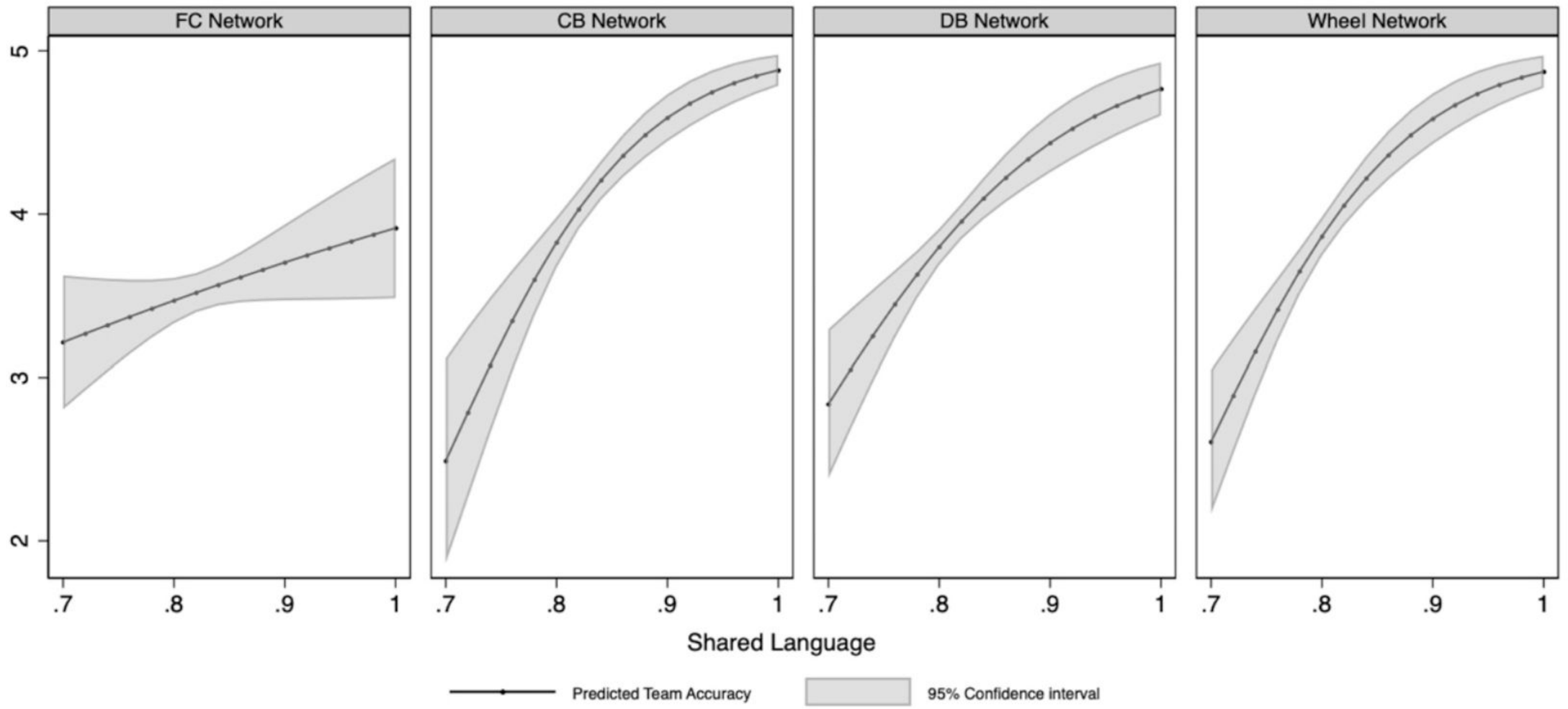
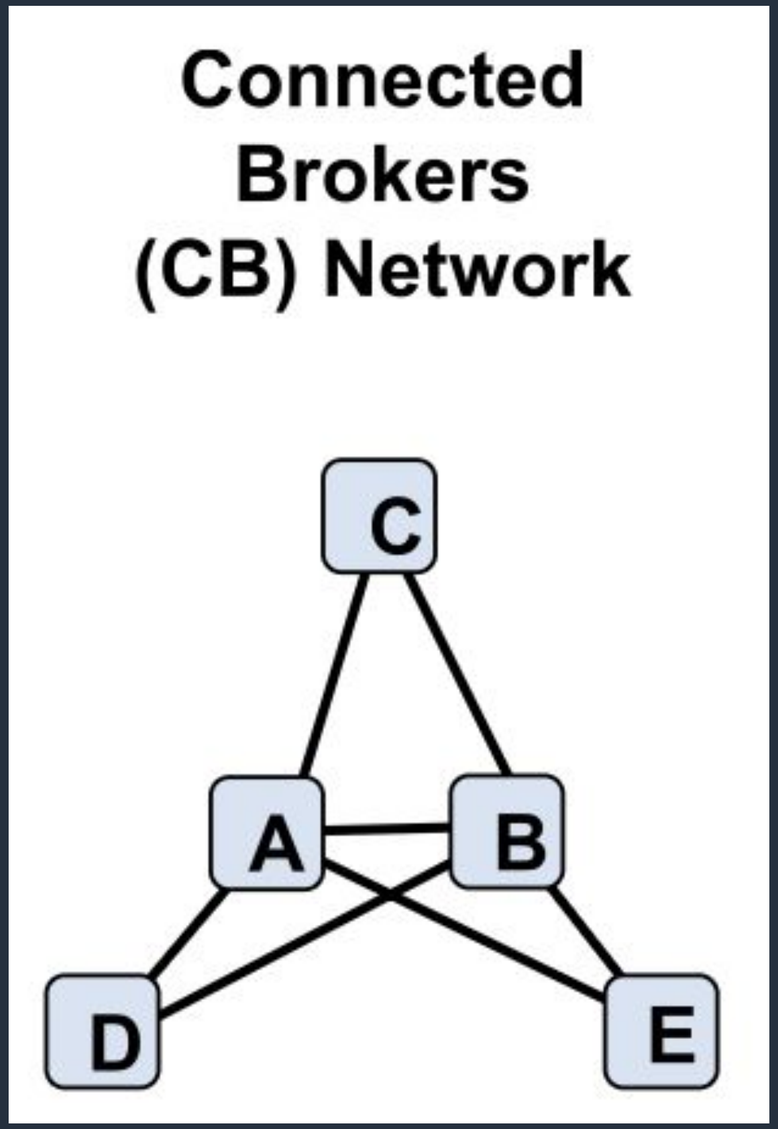



**Figure 8.** Shared language effect on team accuracy by network structure.

# Practical Takeaways

# Benefit from Difference, Embrace Brokers



# Conclusion


# Learn more about Observability

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## Check our other talks


# Thank you

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