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Collective Dynamics of Wealth:
Toward a Network Theory of Family Change

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The Australian National University

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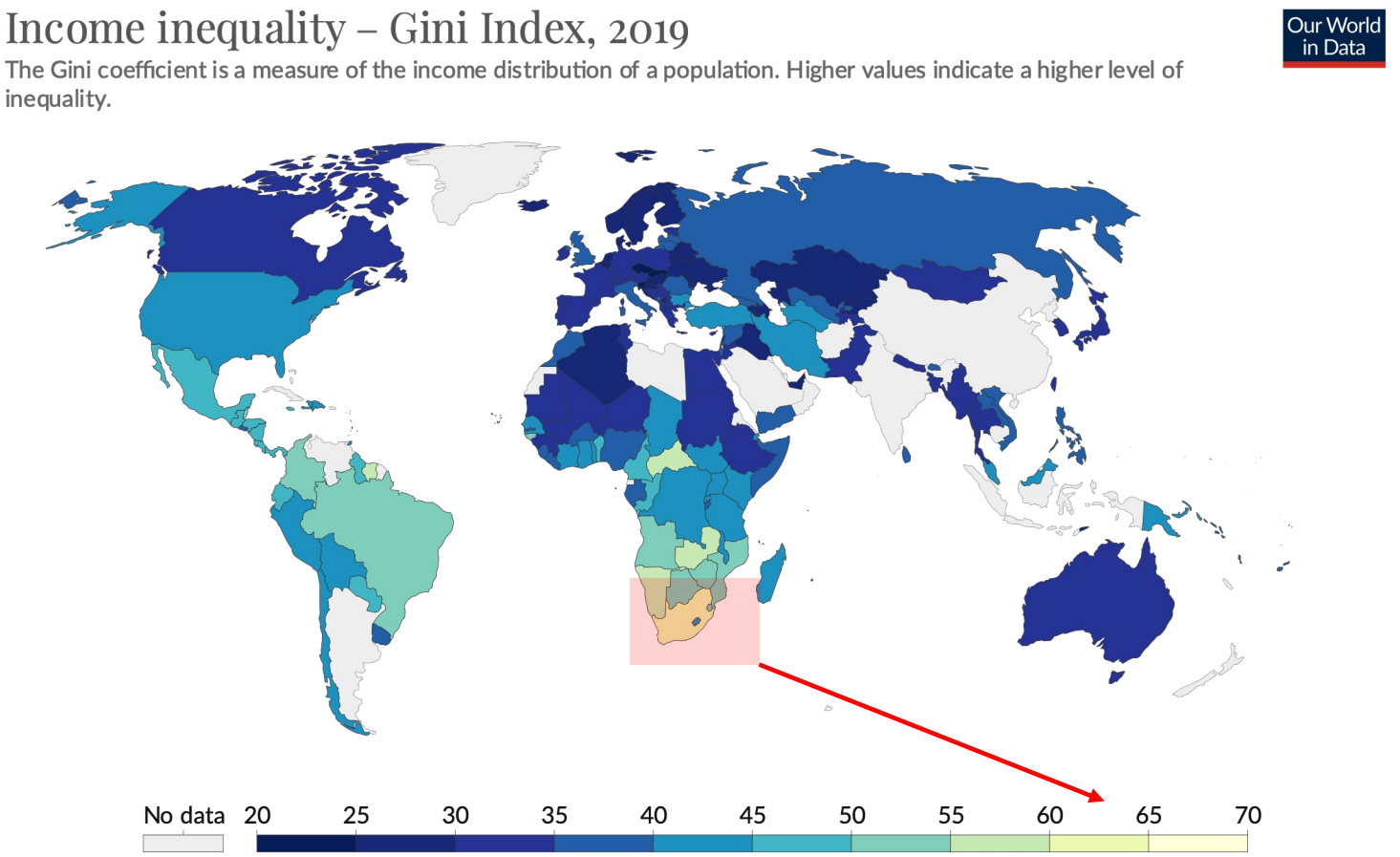
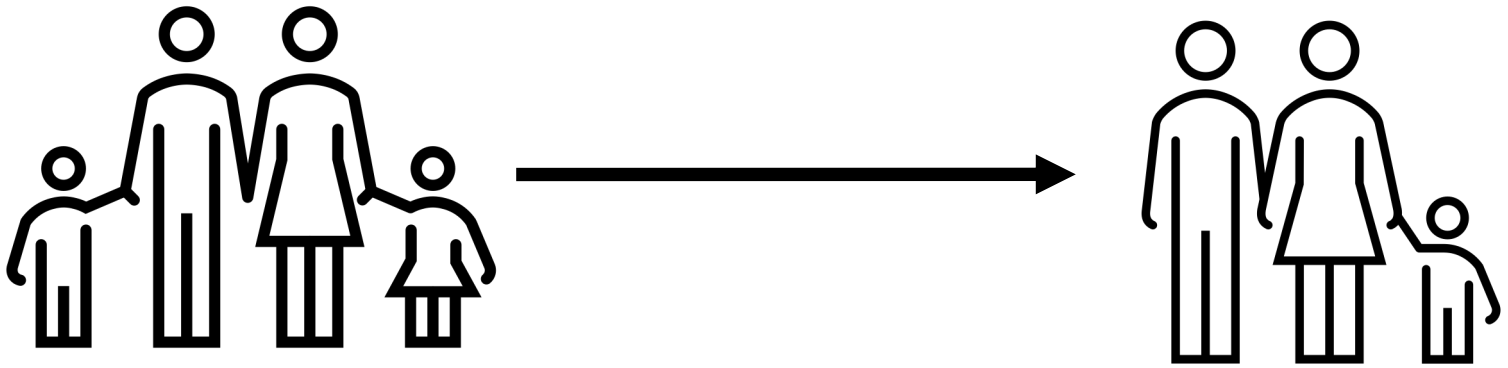
On economic inequality



To understand the complex family arrangement in SA for improved collective outcomes

Theories of modernisation (Goode 1963; Lesthaeghe and can de kaa 1986; Thornton 2001).

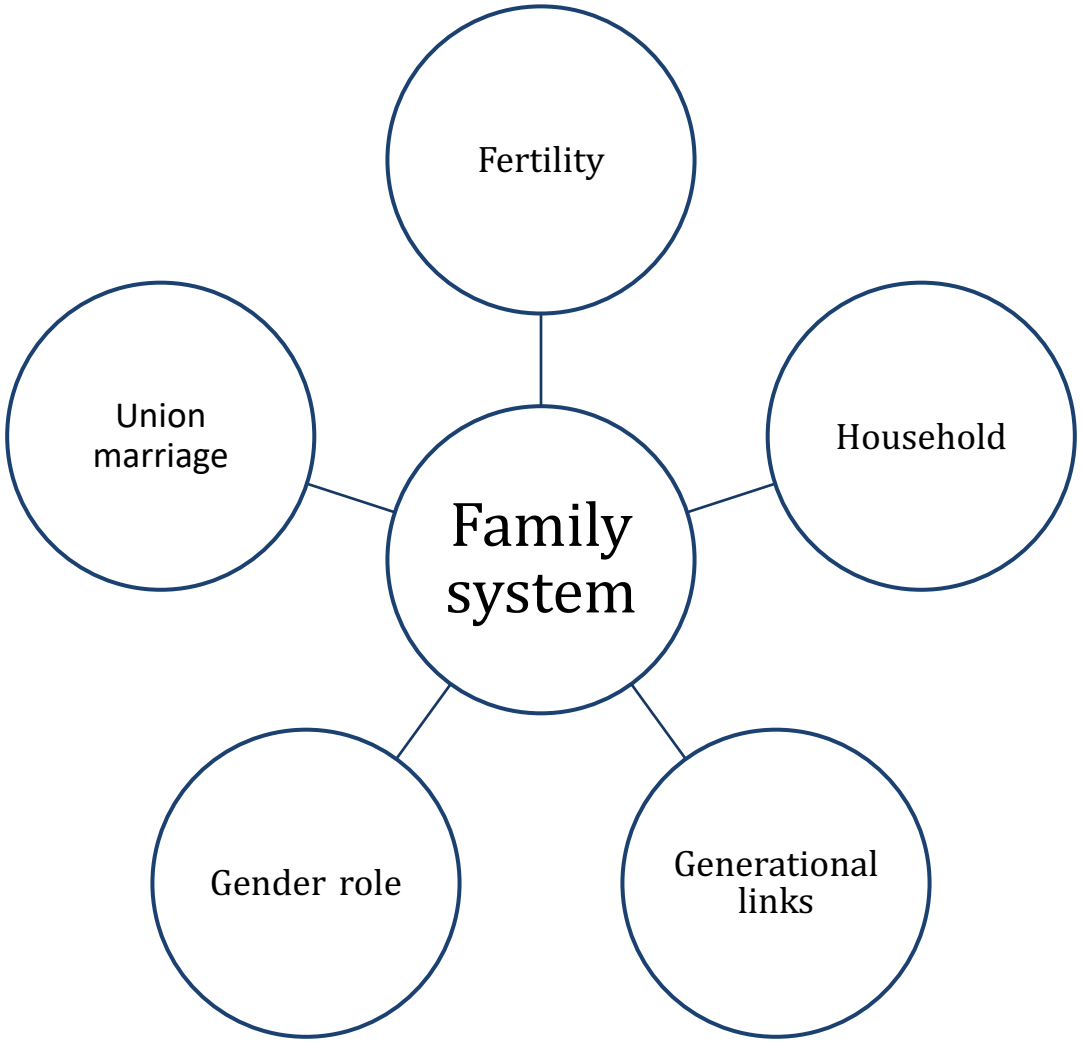
Rational
(Perceived) efficiency



Household Convergence Model
(Ziehl 2001; Amaoteng and Kalule-Sabiti 2008)

Theories of diversity (Therborn 2004; Pesando & GFC-team 2019)

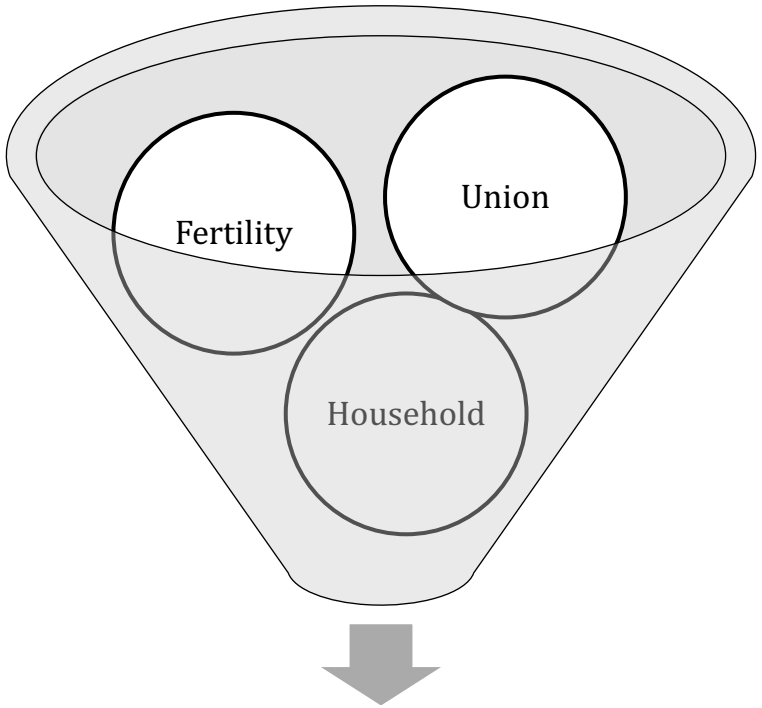
Convergence
and
Divergence



Household Migration Model
(Posel 2001; Russell 2003)

Theories of configuration (Lundh and Kurosu 2014; Widmer 2016; Castro Torres et al. 2022)

Interdependency

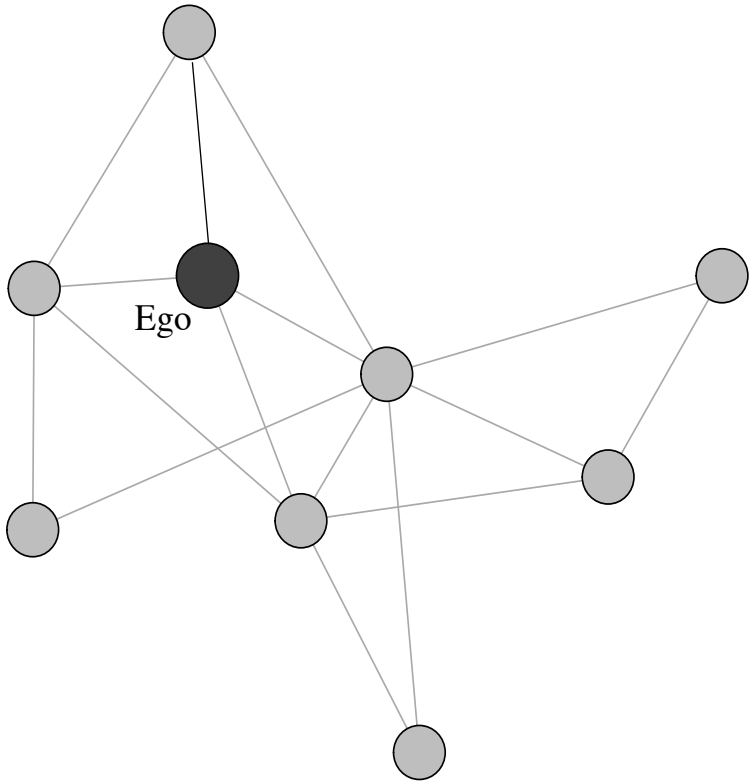


Household Support Model
(Madhavan et al. 2017)

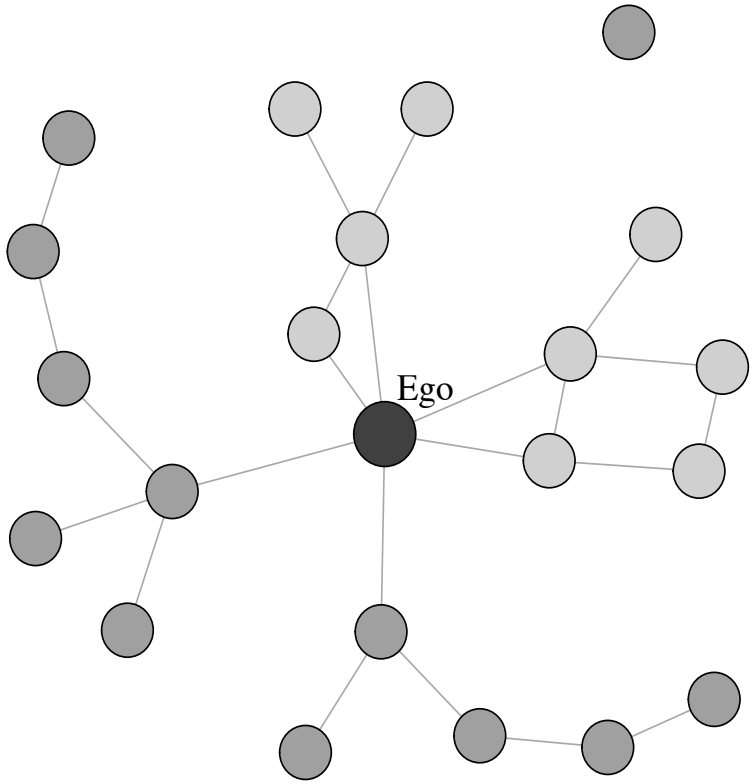
Family configurations

Endogeneity in family dynamics: the network domain

Network embeddedness (high)



Network diversity (high)



Challenges

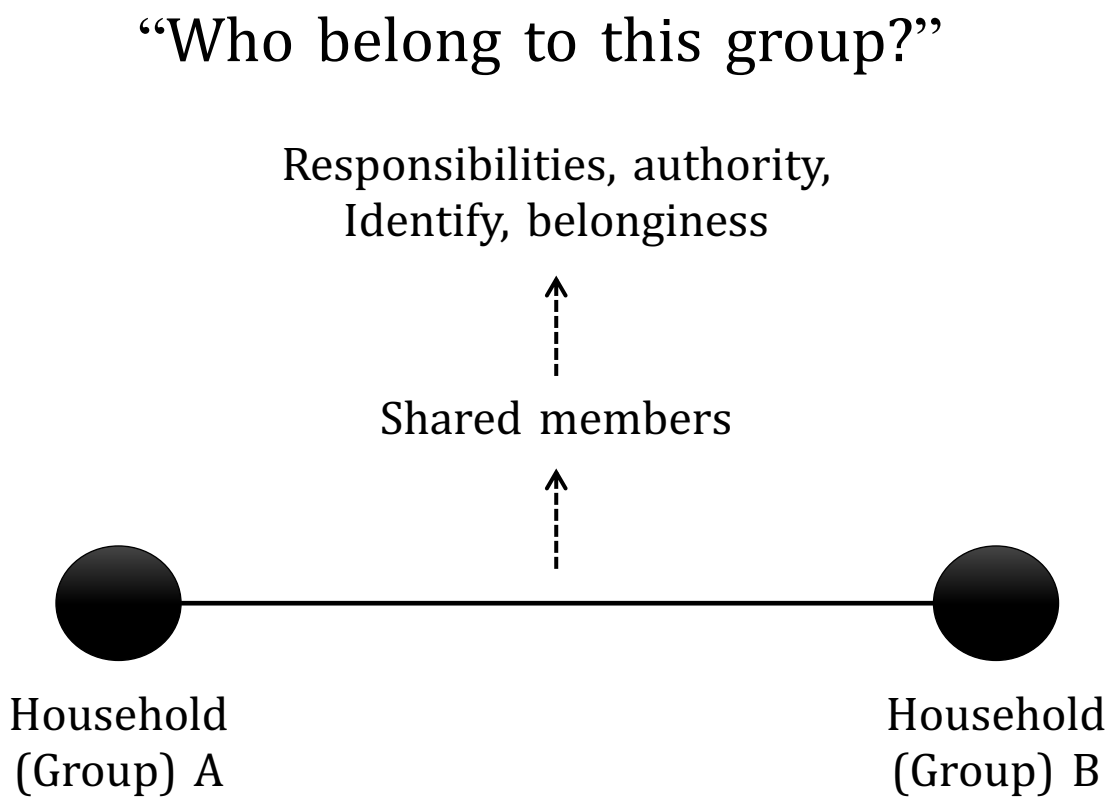
- **How** can we quantify “tangible” network behaviours?
- Networks are inherently **Endogenous.**
- **Why** “networks” matter for family dynamics?

Estimate the diffusion potential of family economic resources in a large-scale social network

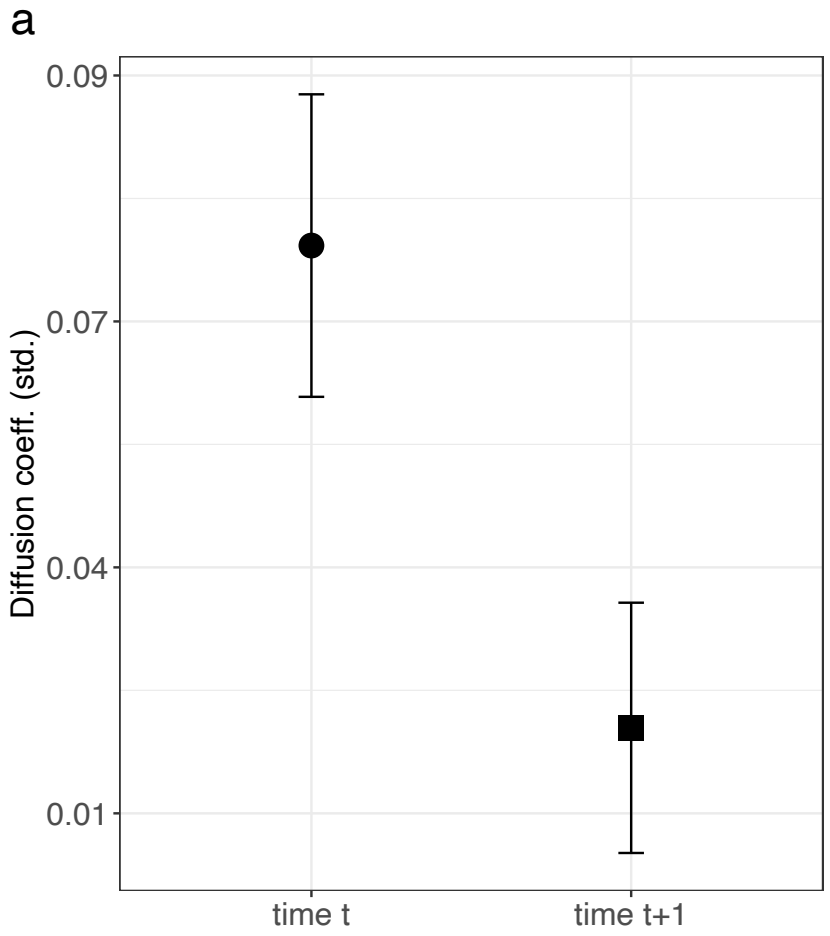
Data

- Africa Health Research Institute (Gareta et al. 2021).
  - Demographic Surveillance Area ("whole population study" since 2000)
  - 100,000 people in 12,000 households.
  - One the poorest settings in SA.
  - Heavy reliance on non-contributory government pension.
  - High internal, circular, labour-based migration.

Methods: network data and model identification

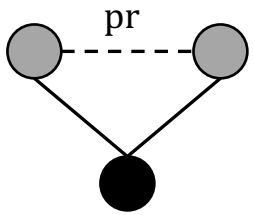


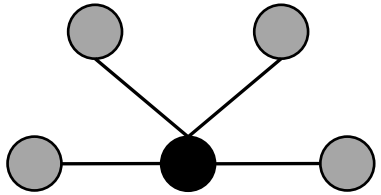
Result 1. Consistent estimates on the wealth diffusion effect

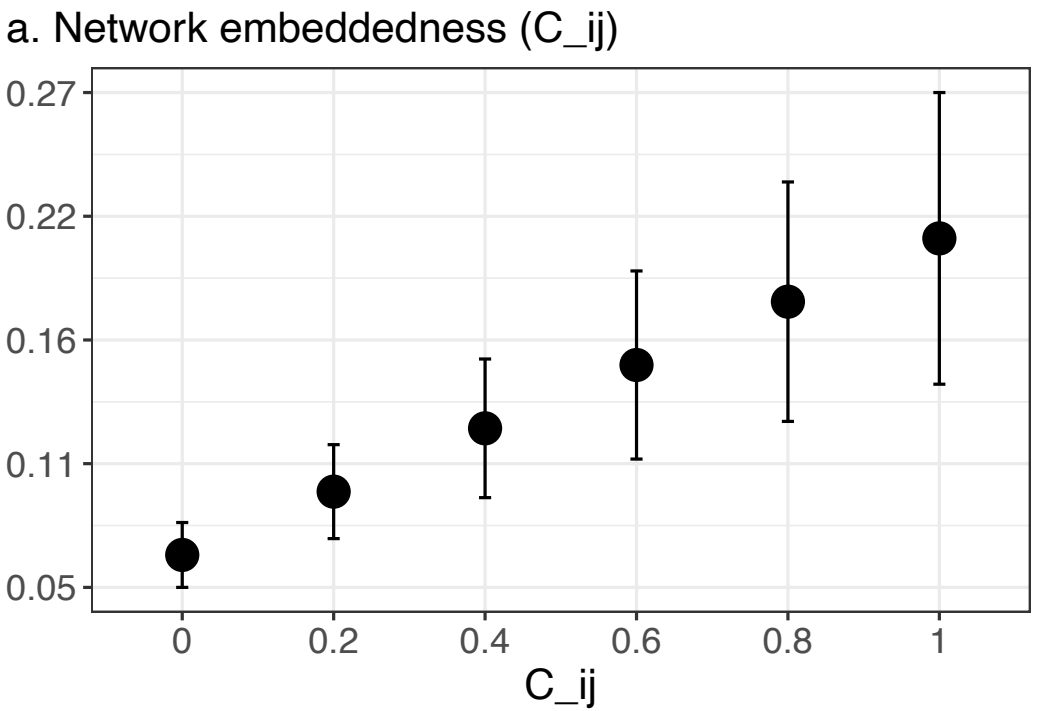


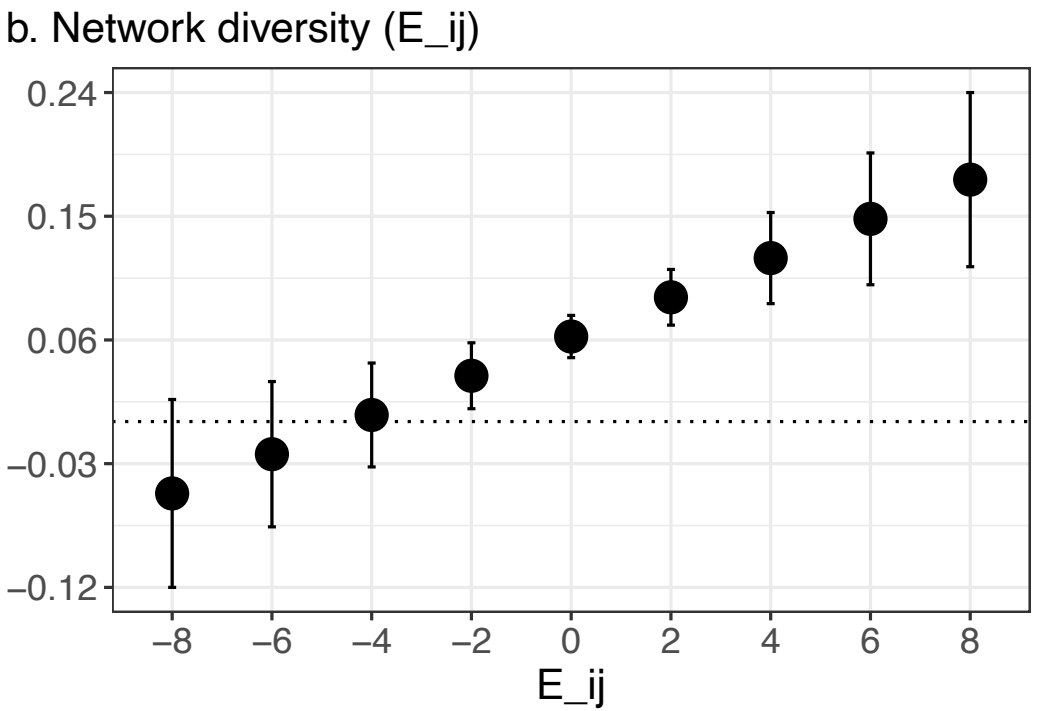
Models: **1)** Networked clusters, **2)** Network (spatial) autocorrelation, **3)** 2SLS

Result 2. Stronger diffusion under a "small-world" network

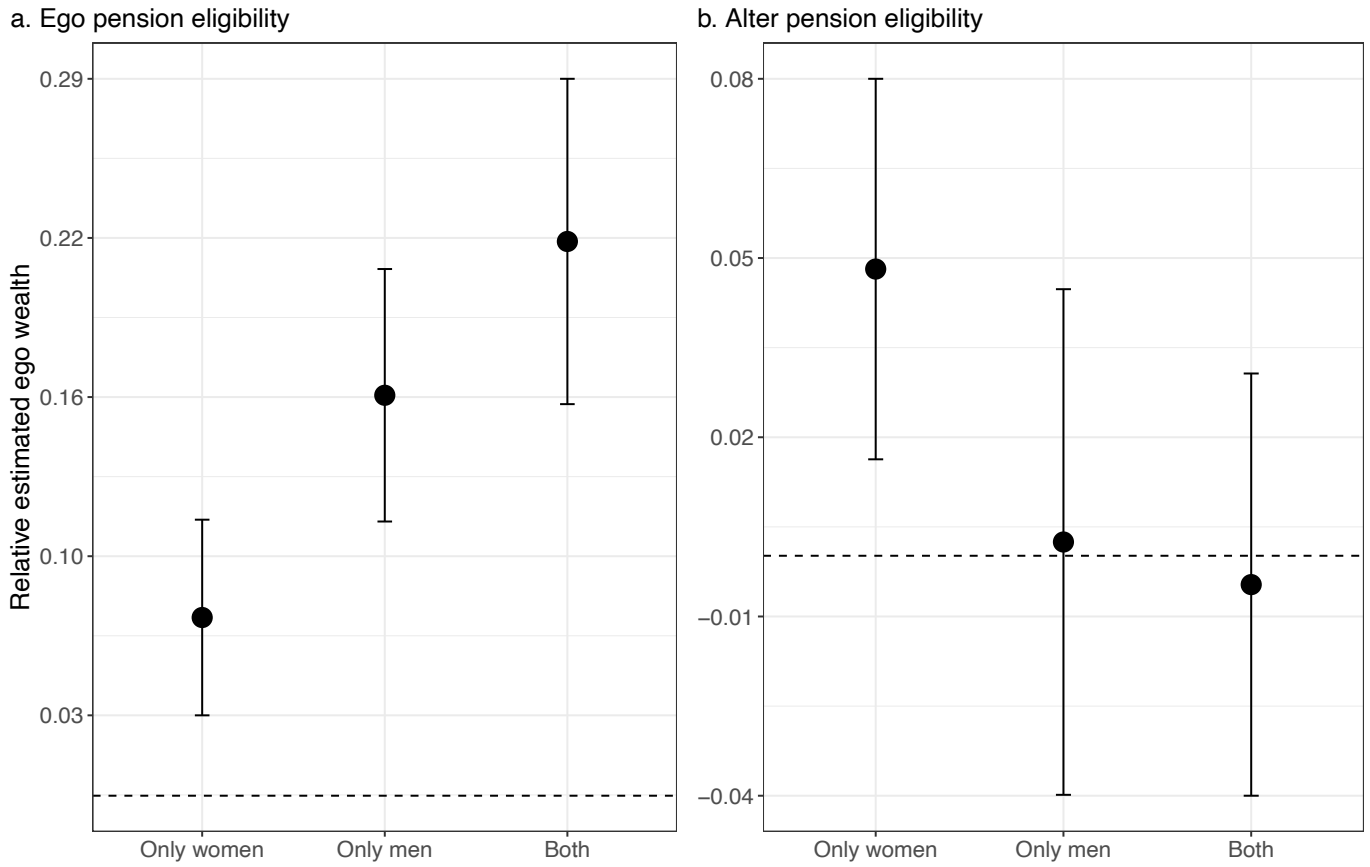








Result 3. Institutional resource spillover



Conclusion

- How can we apply the methodologies to other contexts?
- How “top down” intervention can help to address local constraints?
- Understanding networked population dynamics.

Acknowledgement

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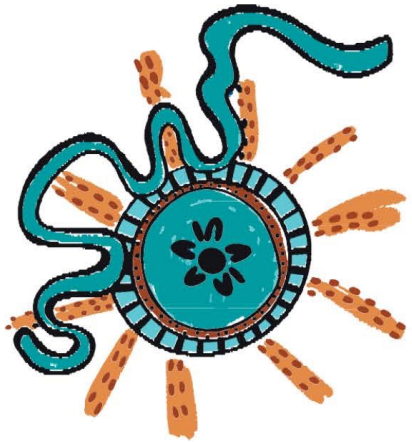

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