Domino Effect: Network Structure and Recruit Cohesion

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Motivation

It is a fact that most recruits were won to the movement rather through influence from friends than from a thorough political stand. Here lies the risk of a domino effect. If the friend decided, for one reason or another, to revoke his or her membership, then there was a big risk that he or she did not leave alone...

Figure: Blood & Honour Field Manual

Background

- Who is [was] "Max Hammer"?
  - Associated with Erik Blücher
  - Norwegian/Swedish neo-Nazi [NN] activist (Dyck, 2016; Koehler, 2016)
- What is the Blood & Honour Field Manual?
  - Mobilization and debrief manual for European NN movement
  - Probably dates to the early 1990s
  - Strategy manual for mobilization, failures
- Why does this matter now?

Puzzle

Directly contradicts canonical findings and academics' intuitions

- Established conclusions: social networks reinforce participation in risky movements
  - Freedom Summer Project in 1969 (McAdam 1988)
  - Right and left wing underground mobilization (della Porta 1995)
  - Paris Commune (Gould 1995, in Passy 2004)

Research Questions

Assuming "Max Hammer" is broadly correct:

- What does this observation imply about social processes in extremist movements?
- What influence does network structure have on social exit dynamics?
- How can we evaluate the implied processes at scale

Existing [Political Science] Work

Intersection of large, but separate, literatures

- Social networks and militant group organization (eg: Amat 2019; Gade, Hafez, and Gabbay 2019a; Gade, Hafez, and Gabbay 2019b; Kenney et al 2013)
- Ideology and demobilization (eg: Altier et al 2017; Bjorgo and Horgan 2008; Horgan 2009; Kaplan and Nussio 2018; Oppenheim et al 2015)

Goal

- Model network-based individual updating implied by the B&H Field Manual
- Test the effect of network structure(s) on group outcomes

Big Picture Contribution

Compare updating models to empirical outcomes tells us about the dynamics of [extremist?] groups

- Understand where "best practices" fall short
- Develop more strategies for inhibiting or enhancing a dynamic of interest
- Condition expectations about growth

Research Design High Level Overview

- Simulate recruit and group networks
- Affiliation/Disaffiliation choices made by individual nodes
- Individual decisions influenced by network connections

Simulation

- Create nodes with attributes that influence updating
- Seed two social networks, call one "group" and one "recruit"
- Make the "group" network more extreme on a [0,1] ideological spectrum
- Merge the networks based on node-level choices
- Introduce an ideology shock in some "recruit" nodes
- See how (if) the shock spreads disaffiliation

Illustration Initial Random-Pref Attachment

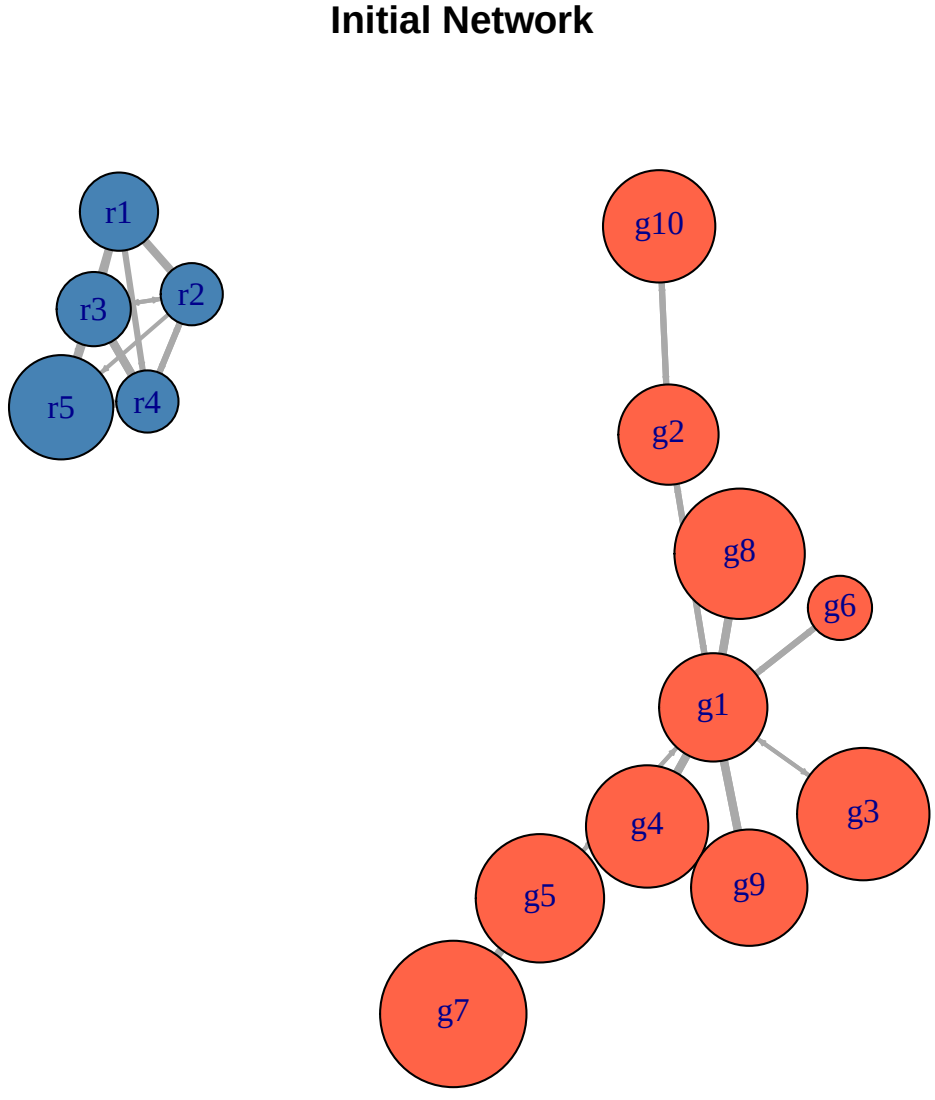
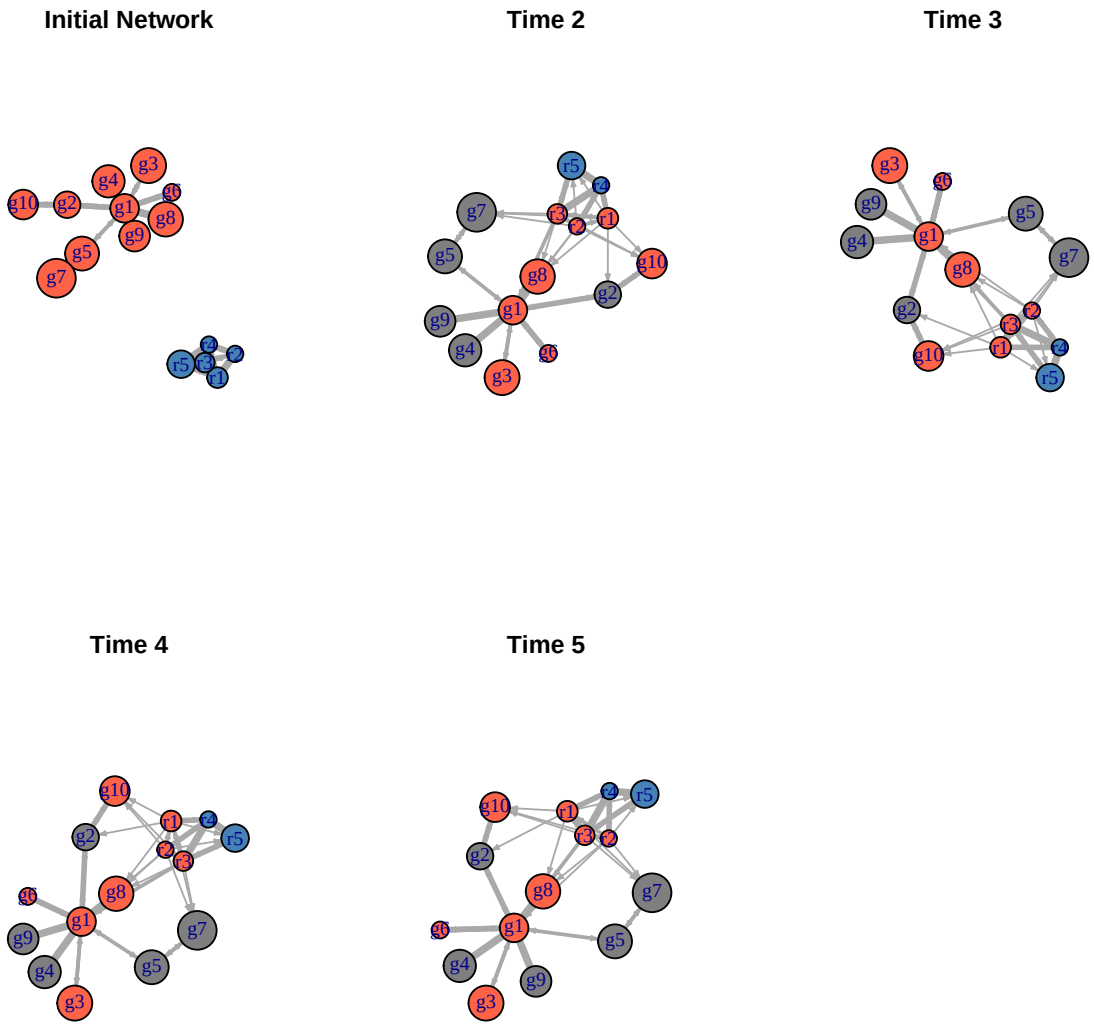


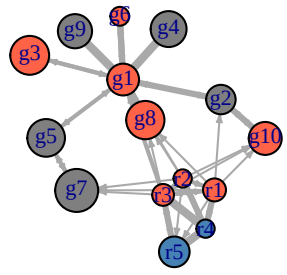
Illustration: Sample Path Through Simulation Rounds 1-5



(Nodes sized according to receptiveness)

Illustration: Sample Path Through Simulation Rounds 6-10

Time 6



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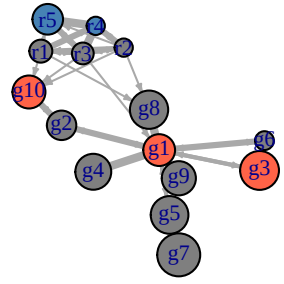

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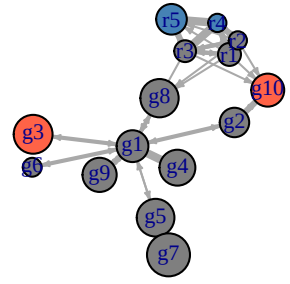
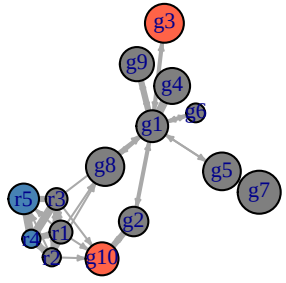


60% of Recruit Nodes Shocked in T6

Time 9



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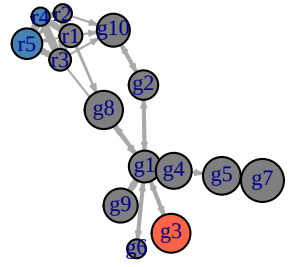


Network Features: Nodes

Nodes are individual actors with:

- An ideology $\in [.5, 1]$ (group) or $\in [.25, .75]$ (recruit)
- An affiliation threshold $\in [.6, .1]$
- A propensity to take their own council or update their ideology to reflect their ties (ego weight)

Network Features: Edges

Edges carry:

- Attention (direction)
- Influence (weight, randomly distributed)

Social Updator for Node Ideology

Putting the node and edge attributes together:

Simulation Takes:

- Node i ego weight $*$ node i ideology at time $t-1$
- Attention weight to ties $i-j...i-n$
- Ideology of nodes $j...n$ at time $t-1$

Produces:

- Node i's ideology at time t from weighted sum of the ideologies of node i's attention.
- If ideology for node i_t is greater (less than) than node threshold, node joins (leaves) group

Initial Network Designs

Three Stylized Network Pairings

- Erdős–Rényi Recruits - Erdős–Rényi Group
- Erdős–Rényi Recruits - Small World Group
- Erdős–Rényi Recruits - Preferential Attachment Group

Not modeled: A more security-conscious network (eg: Tree)
Not modeled: Larger networks

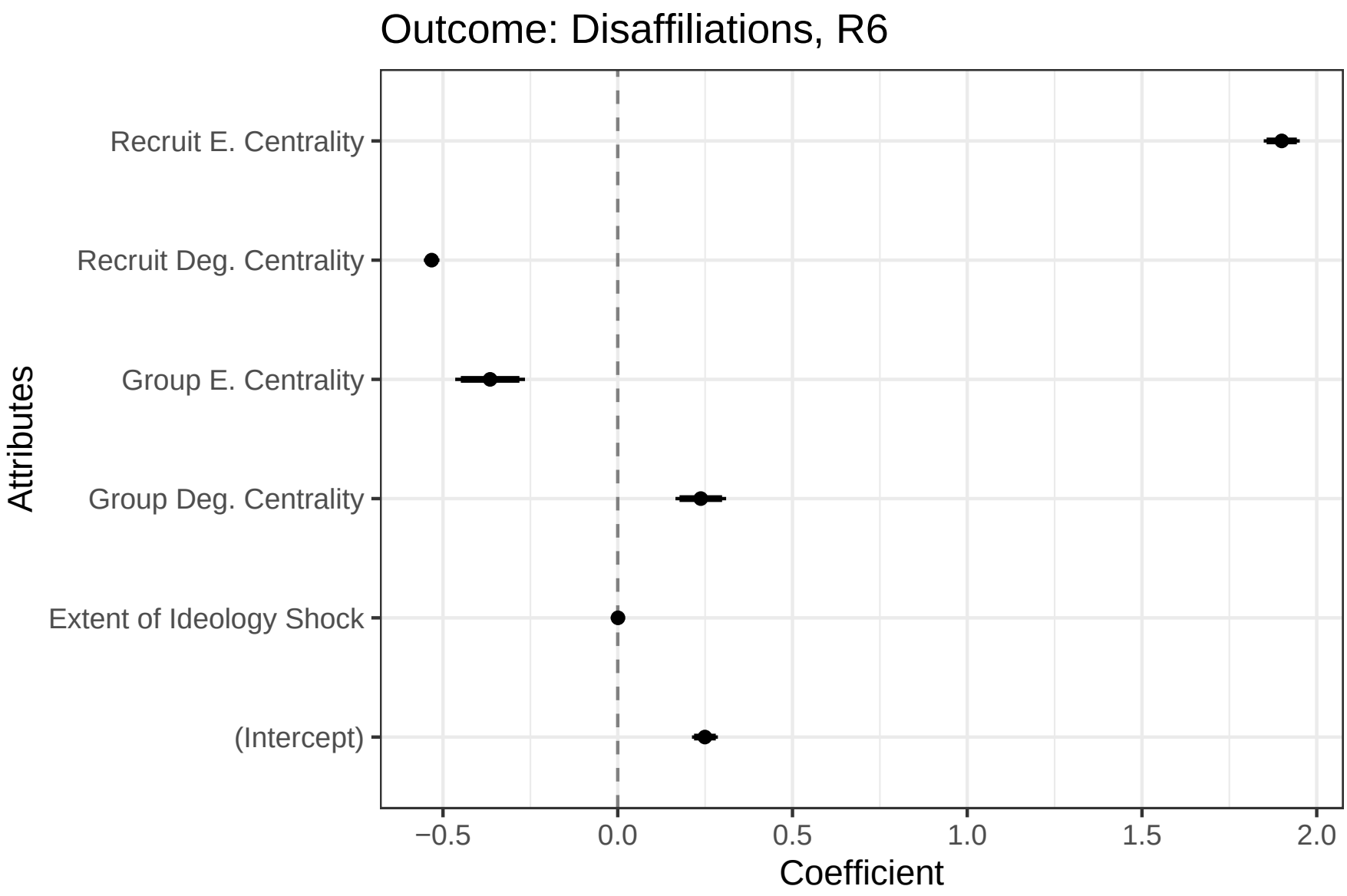
Preliminary Results:
(1) How do recruits join along a social network?
(2) What happens after some recruits become disaffected?

Preliminary Findings

A handful of preliminary observations:

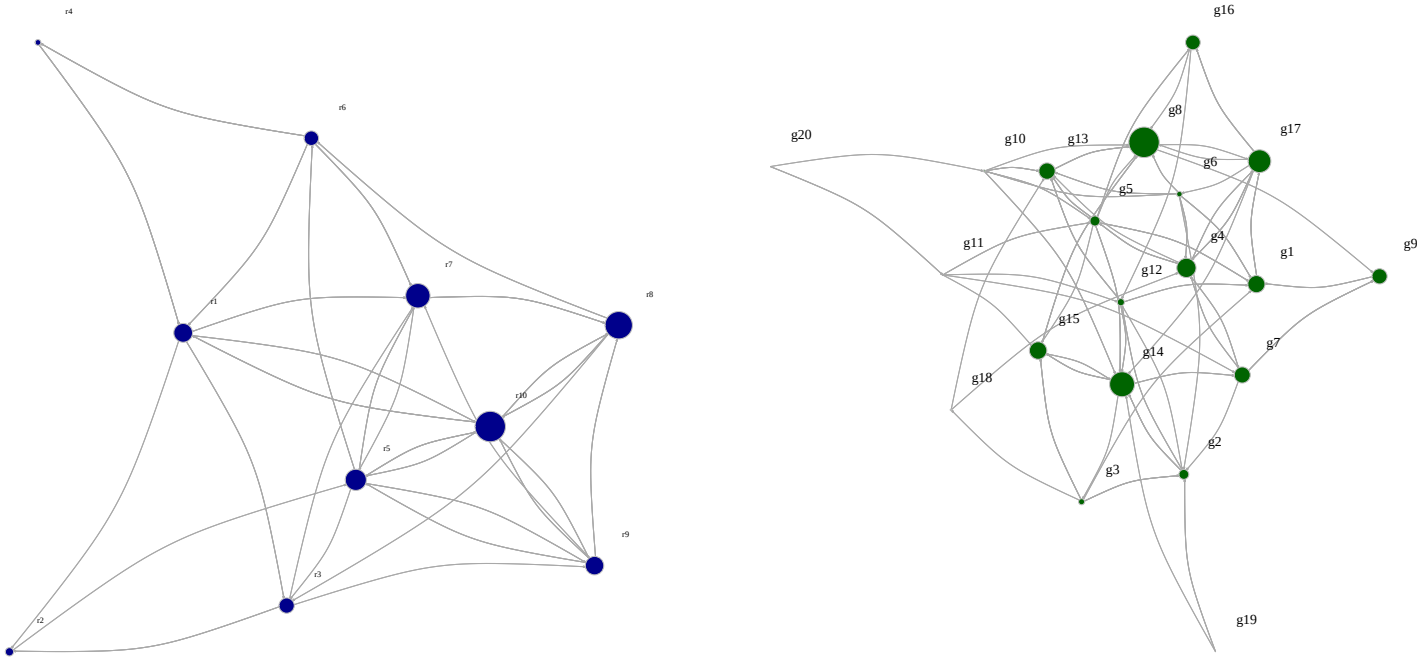
- Unexpected attrition right after a recruitment wave
- Decentralized (ER, SW) structures more resilliant to breakdown
- More centralized groups break down faster & at a lower shock level
- Depending on structure, can be remarkably difficult to induce fragmentation

However!
Something interesting happens when we scale up the random-random networks



(ER-ER Outcomes, Across 1,000 Networks)

What does a high eigenvector recruit network look like?



High Recruit Eigenvector Network, Moderate Group EV Network

Follow-on puzzle

If small world networks are stable + secure, why ever deviate from this structure?

"Max Hammer" again:

"...do not forget the good ol' socials ... [Where you] drink a little, talk a lot listen to WP music and generally have a good time. That's propaganda too. Many have been drawn to the Movement simply through a need of a social life, tight comradeship and a common purpose in life. Of course, such basic events must be followed up by thorough education and more serious activism"

Refinements and Next Steps

Refinements:

- Is attrition based on the right underlying model?

Next Steps:

- Is this a far-right only story?
- Empirical similarities

Thank you

Thank you!
Questions, Comments, Suggestions?
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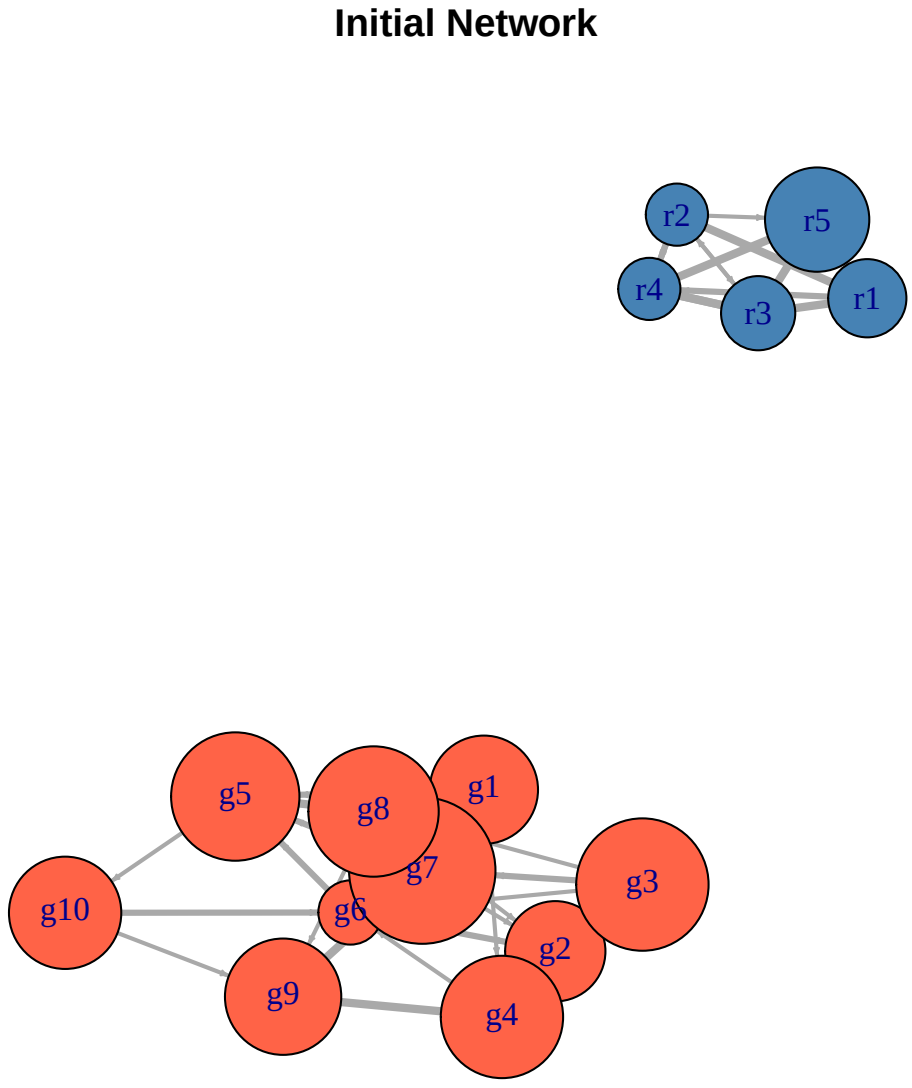
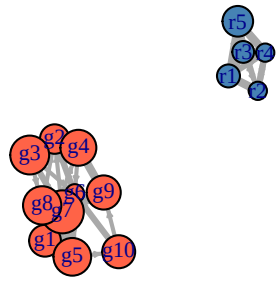
Initial Random-Random



Random-Random, Rounds 1-5

Initial Network



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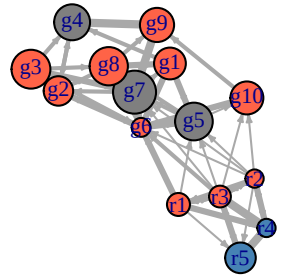
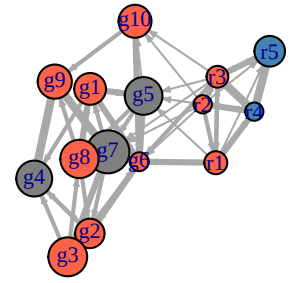


Time 3



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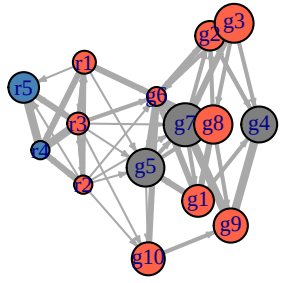

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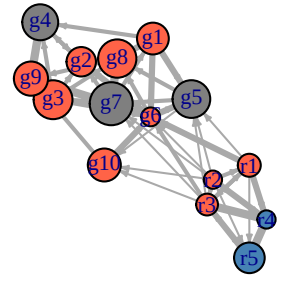
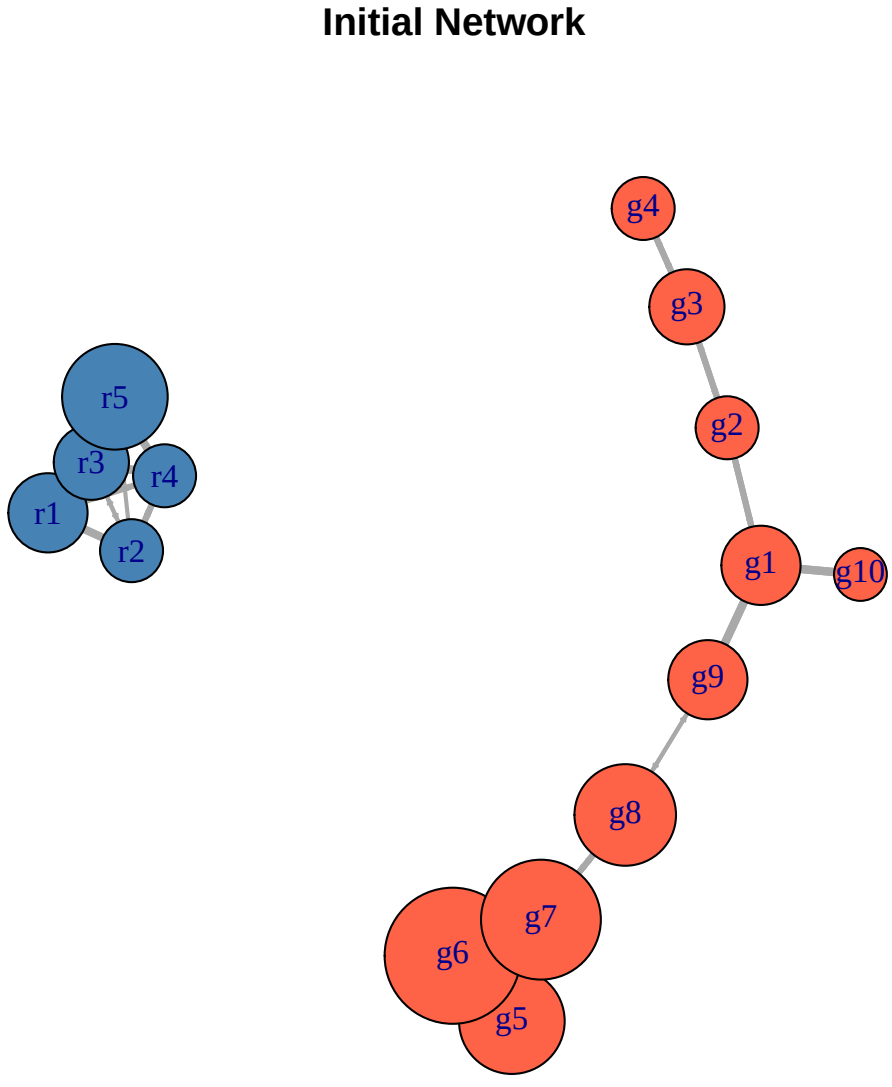
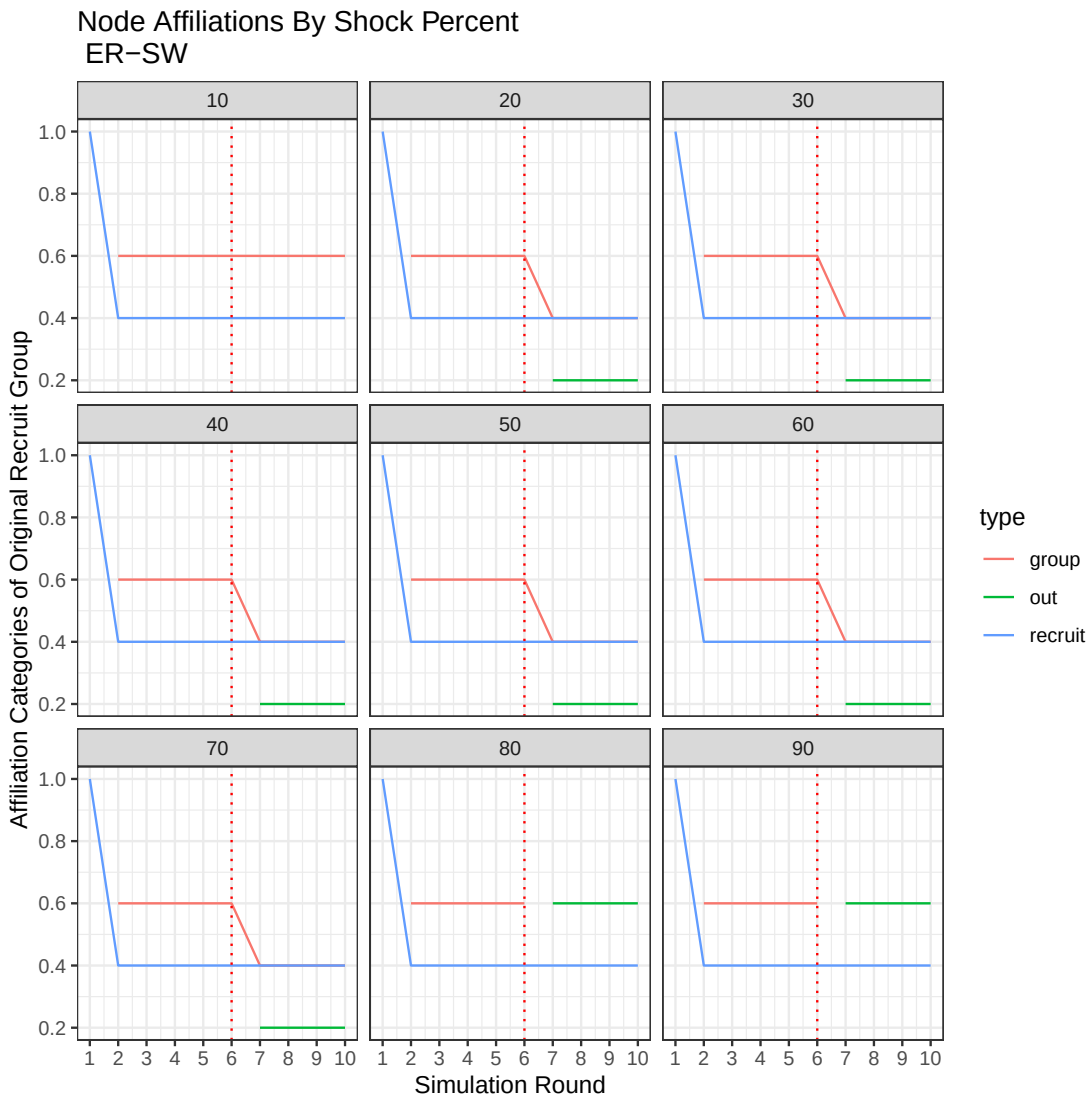


Initial Random-Small World



Results Small World



Random- Small World, Rounds 1-5

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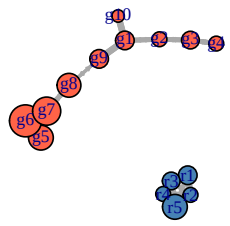

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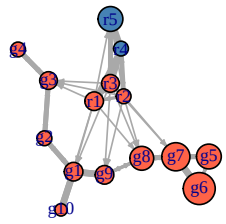

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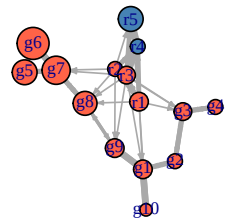

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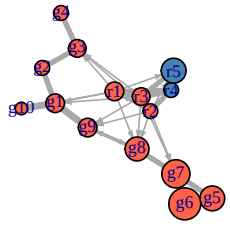

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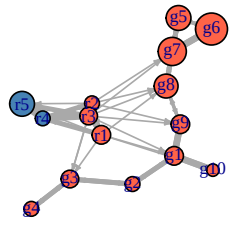

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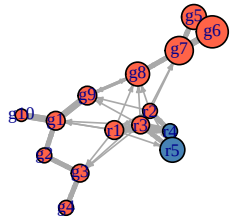

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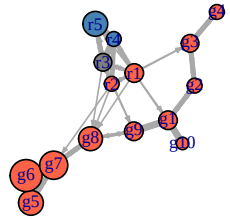

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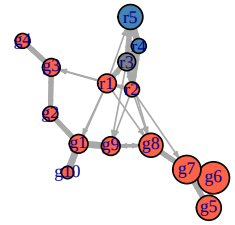

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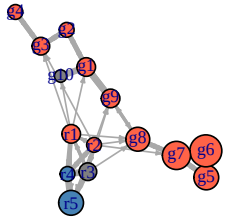

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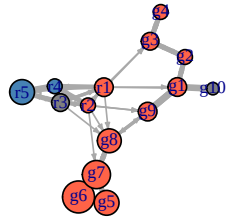
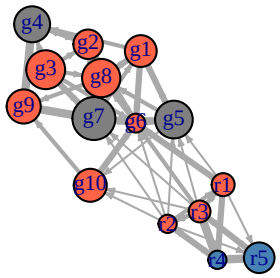


Random-Random, Rounds 6-10

Time 6



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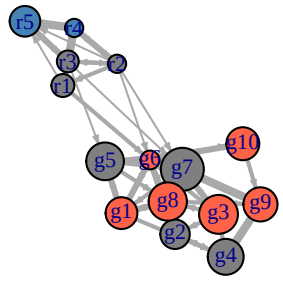

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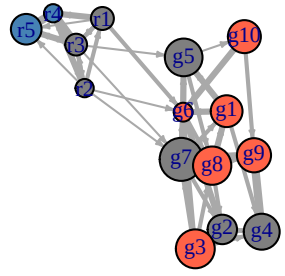
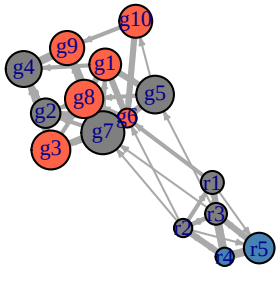


20% of Recruit Nodes Shocked in T6

Time 9



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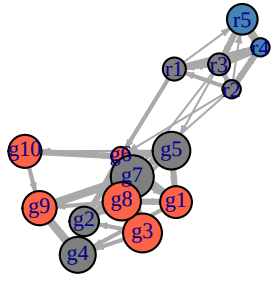

Results Random- Random