Conclusion

CRJ 605
Statistical Analysis of Network Data

Reminders...

❖ Final Paper is due **5/1** by 1pm, submitted in .docx format.

❖ Complete the course evals!

I started this course with a question…

Why Networks?

Why Networks?

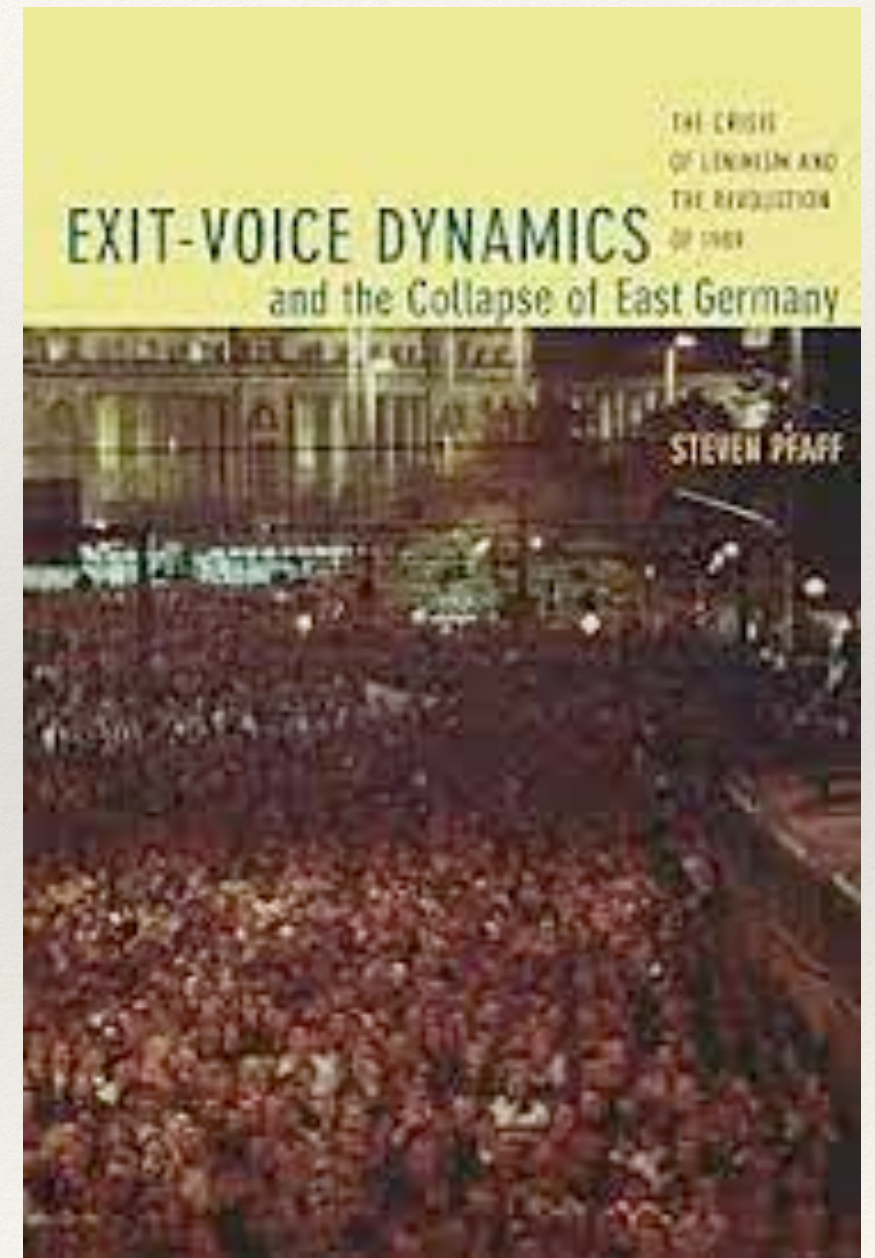- In 1989, the German Democratic Republic (aka "East Germany") collapsed.

- What happened?

Why Networks?

- Understanding exit/voice theory

  - When people have grievances, they can: leave (exit) or express grievances (voice)

  - What happened in the GDR?

    - Exit was not an option after 1961 (visa application sanctions; a wall!)

    - So people used voice…not for nearly 30 years!
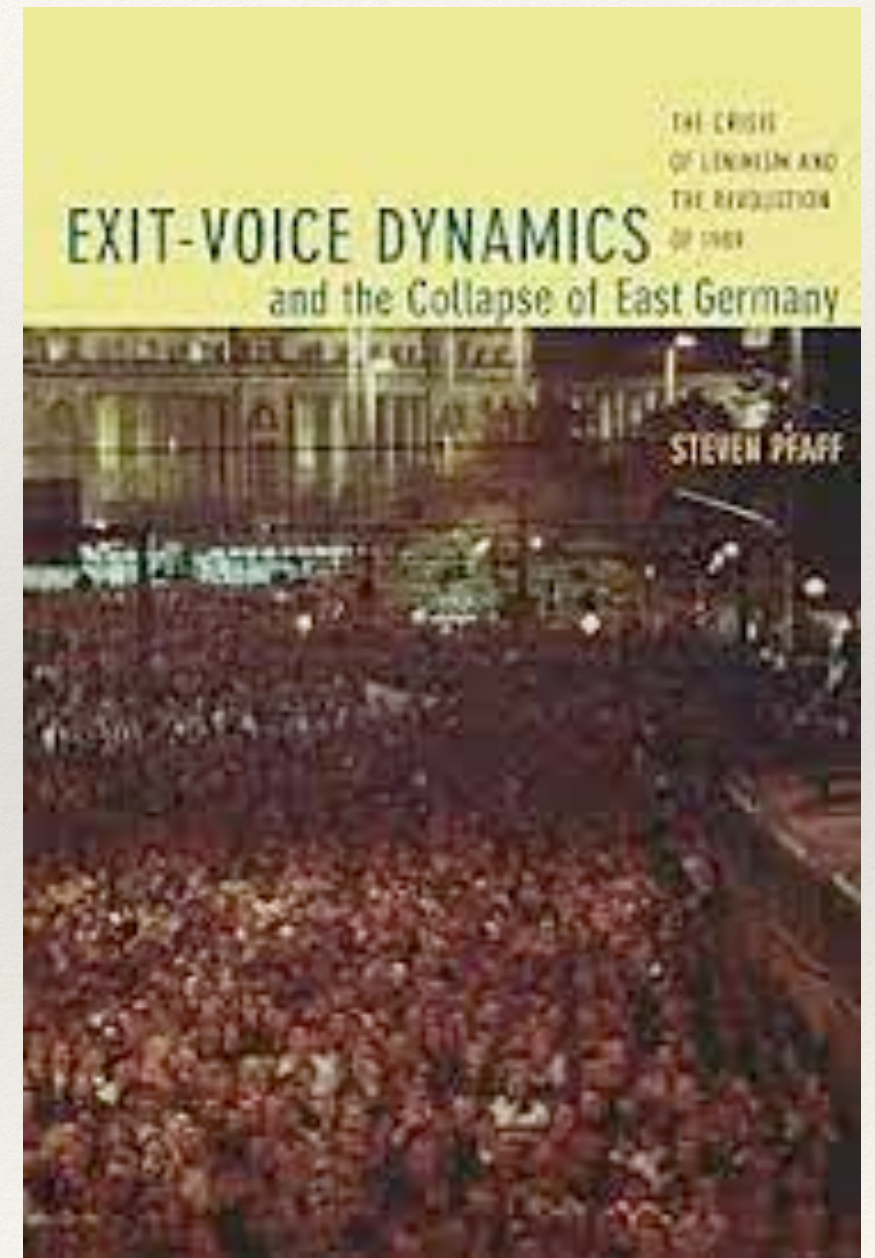
      - *Why?*

Why Networks?

❖ Statsi as a surveillance tool led to a "niche society" where individuals discuss grievances, but only with close, trusted friends
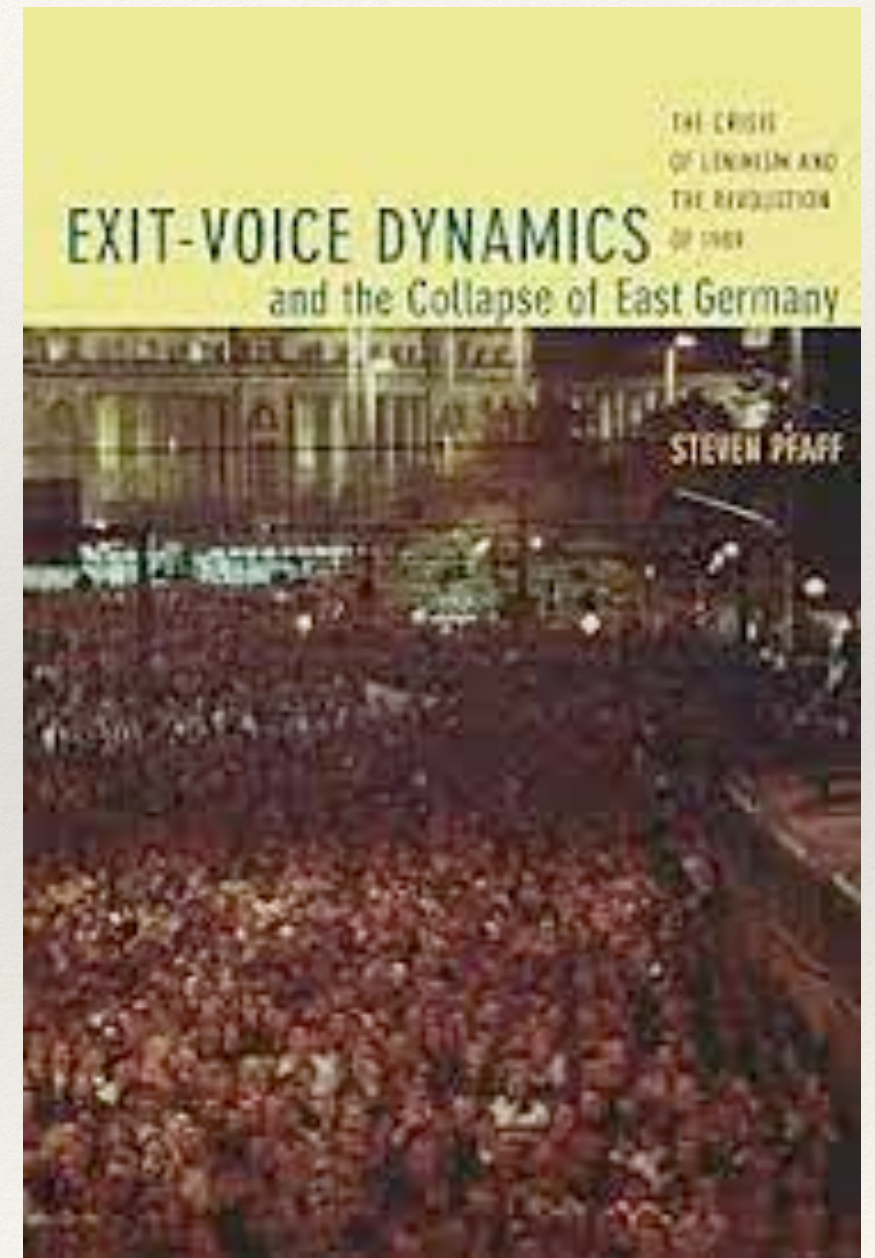
Why Networks?

* Eventually, the Lutheran Church would serve as a place for individuals to discuss grievances.

* Solved the underlying **coordination problem**

EXIT-VOICE DYNAMICS and the Collapse of East Germany

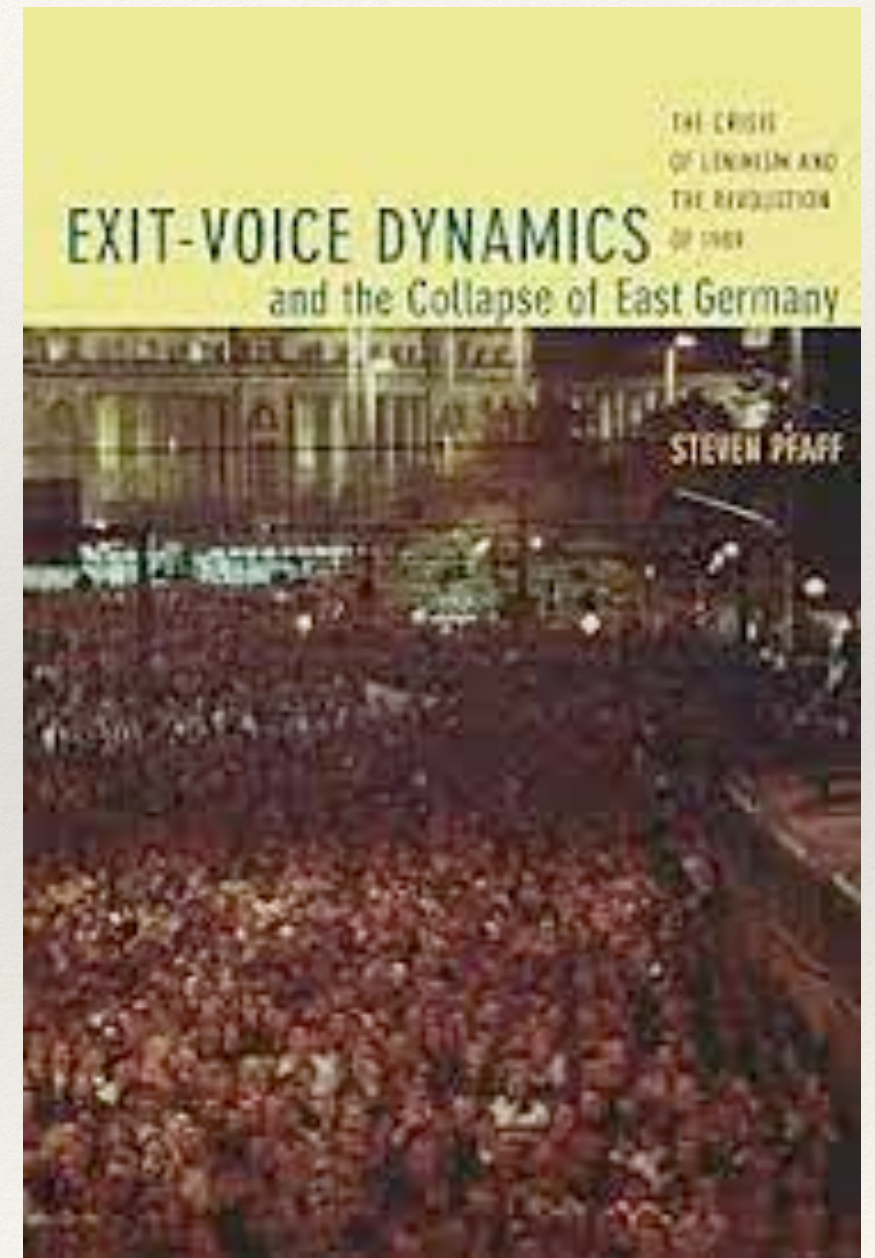THE CRISIS OF LENINISM AND THE REVOLUTION OF 1989

STEVEN PFAFF

Why Networks?

❖ "we usually expect revolutions to usher in a radical regime through violent means, in the GDR mass demonstrations forced the old regime from power almost entirely without violence" (p. 3)
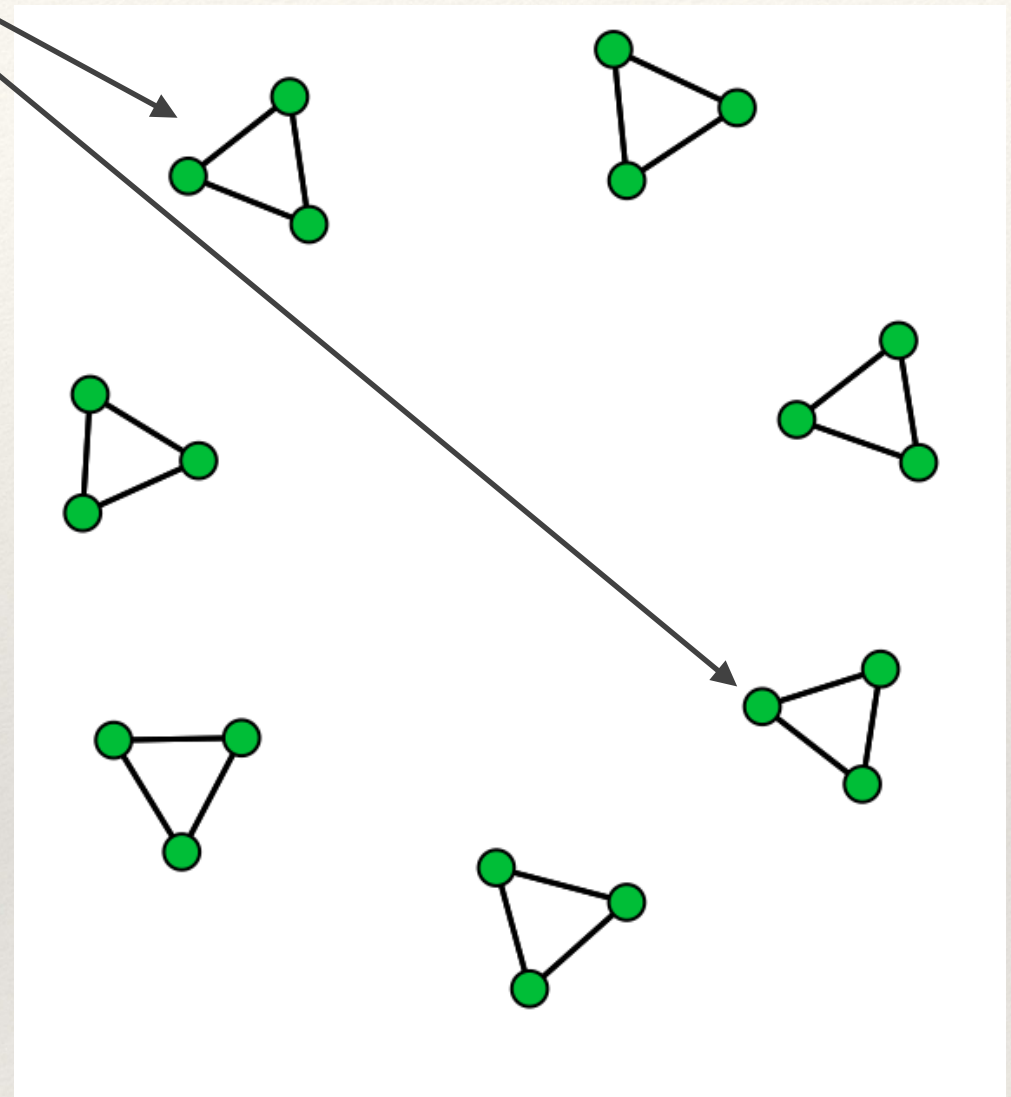
So what?

Why Networks?

- This was a **<u>relational</u>** problem.
  - Not about individuals, it was about social relationships.

  - To understand this, we can reformulate the argument using pictures!

EXIT-VOICE DYNAMICS
and the Collapse of East Germany

THE CRISIS OF LENINISM AND THE REVOLUTION OF 1989
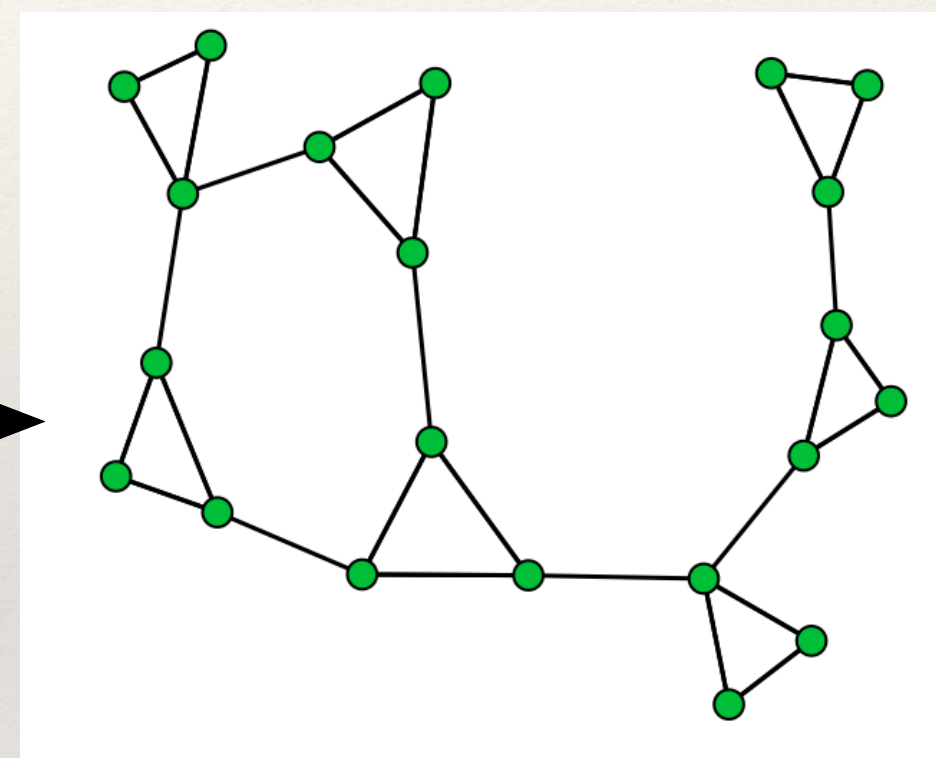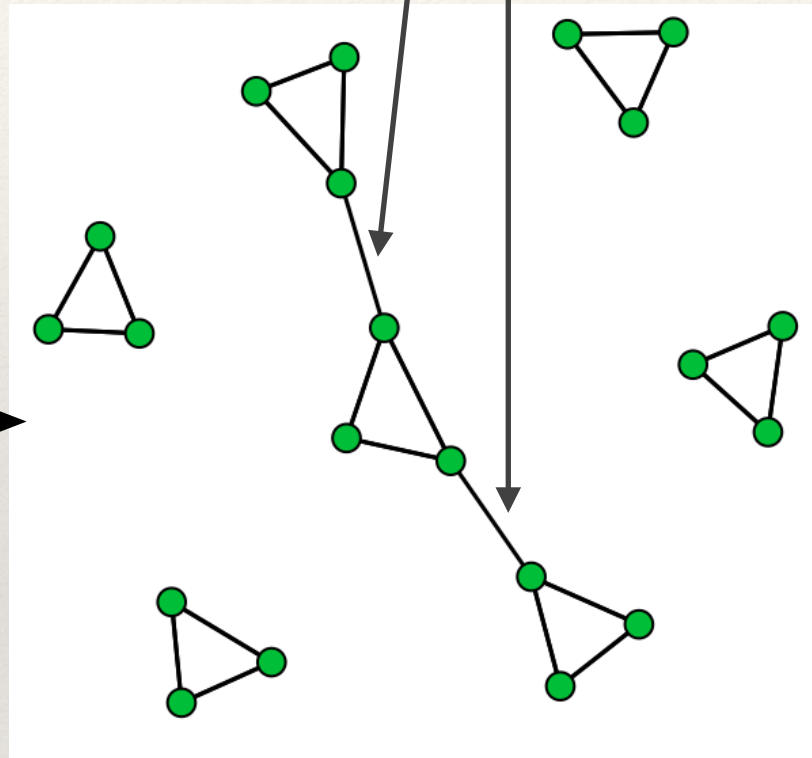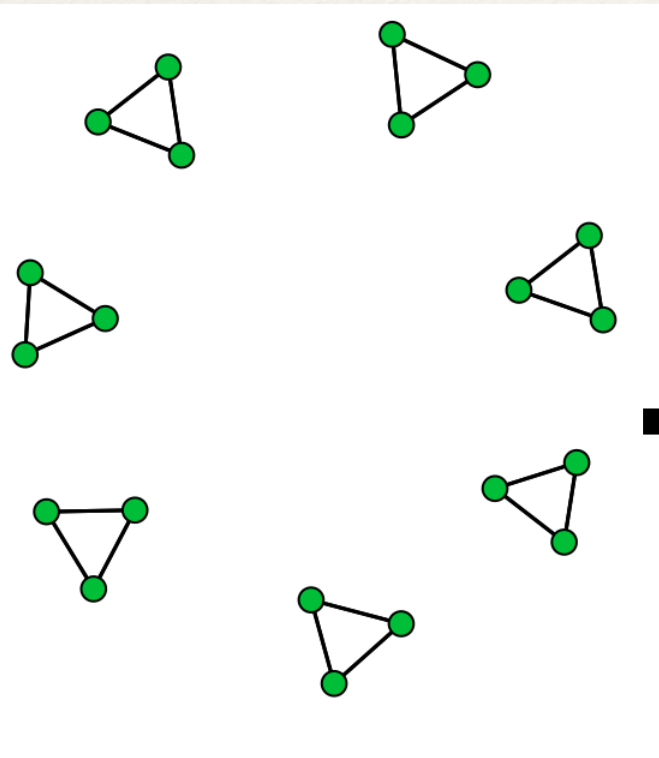
STEVEN PFAFF

Tight-knit groups
discussion concerns

But, what is the problem?

Tight-knit groups discussion concerns

Church relations connect groups

So what happens?

Why Networks?

❖ Many research problems (and solutions!) in the world are **relational** in nature.

　❖ To answer questions of this sort, we need a specific set of tools.

　　❖ Those tools are what we call *network analysis,* broadly.

Network Science

❖ Now that you have the tools to <u>analyze</u> network data, I hope you will think **more broadly** about questions that can be answered from a network *perspective*.

  ❖ "Thinking structurally…requires that we pay attention primarily to the implications of patterns of relationships among units within social structures" (Wellman and Berkowitz 1988: 16)

❖ You now have the tools to answer questions from this perspective.

You have come sooooo far!!!!

We covered a LOT!

❖ <u>We</u>:

  ❖ Started by describing basic properties of graphs.

  ❖ Ended with hypothesis testing of complex processes.

We covered a LOT!

- We:

  - Started by describing basic properties of graphs.
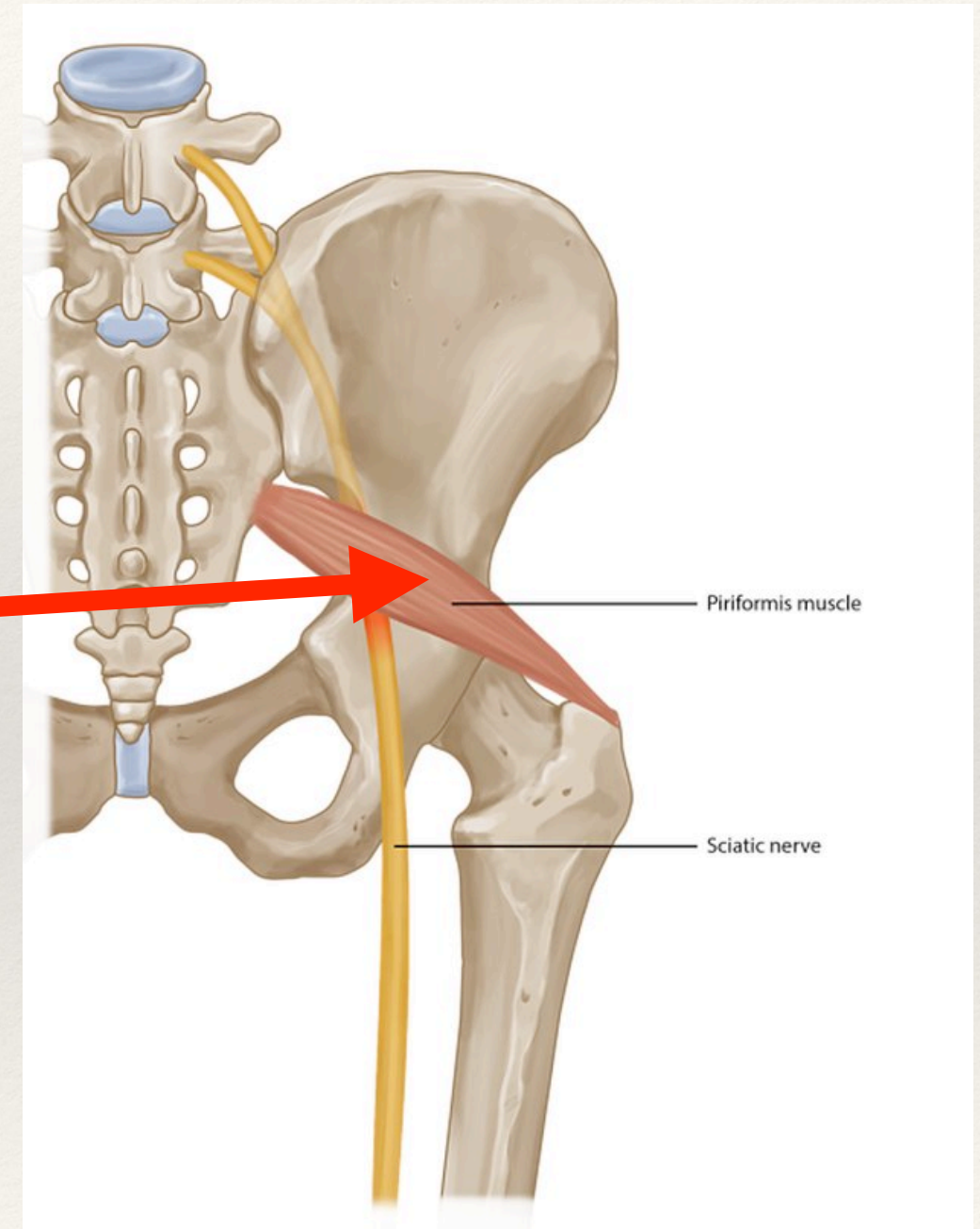
  - Ended with hypothesis testing of complex processes.

Meanwhile, I…

❖ Built a pergola…

I also...

❖ tore my piriformis...

We covered a LOT!

- <u>You also</u>:

  - Learned a new language!

  - Learned project management and reproducible workflows!

Got a fever and the only prescription is more networks?

Suggestions

- Read articles in *Network Science* and *Social Networks*

- Attend the International Social Network Analysis (INSNA, https://www.insna.org/) conference

- Keep working with *RStudio* and start doing your research in RMardown

The end…?

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Nope!

❖ *Want more network science theory?*

  ❖ Take my Network Criminology course

    ❖ https://jacobtnyoung.github.io/NetworkCriminology/

❖ *Want to stay fresh in R?*

  ❖ Take my R Workshop in August

    ❖ https://jacobtnyoung.github.io/RWorkshop/

HAVE A GREAT SUMMER!

And Thanks!