

Sociology 380–Political Science 350: Networks and Social Structure

Fall 2024

Mondays, 1:10 - 4:00pm

PAB 104

LIVE SYLLABUS

Contact Information:

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Course Description:

Social network dynamics influence phenomena from communities, neighborhoods, families, work life, scientific and technical innovation, terrorism, trade, alliances, and wars. Network theories of social structure view actors as inherently interdependent, and examine how social structure emerges from regularities in this interdependence. This course focuses on the theoretical foundations of structural network dynamics and identifies key analytical questions and research strategies for studying network formation, organization, and development. Attention is paid to both interactionist and structuralist traditions in network analysis, and includes a focus on the core principles of balance and centrality; connectivity and clustering; power and hierarchy; and social structure writ large. Substantive topics include social mobility and stratification, group organization and mobilization, patterns of creativity and innovation, resource distributions, decision-making, the organization of movement and belief systems, conflict and cooperation, and strategic interaction. This course couples theoretical and substantive themes with methodological applications. Approximately one-third of course time is spent on the methodology of collecting, analyzing, and interpreting social network data.

Learning Outcomes:

After successfully completing this class, a student will:

- learn the theoretical underpinnings of network analysis as well as sociological and political contributions to its founding and growth
- understand network measures and be able to apply them in a variety of contexts and fields, including contemporary applications
- know how to collect network data and analyze it using R or Pajek/UCINET
- apply the above to a final project

Distribution Requirements:

This course fulfills all of the [Group II distribution learning outcomes](#). Along with SOC 211, SOC 380 also fulfills half of the [History and Social Sciences divisional requirement](#) for non-Sociology HSS students; along with any POL Introductory course, POL 350 fulfills half of the [History and Social Sciences divisional requirement](#) for non-Political Science HSS students. For Political Science students, it counts towards [subfield depth in International Relations](#). It is also an [ICPS course](#).

Course Materials:

The following books can be purchased from the Reed College Bookstore; a PDF of the required text is also available in the [EReadings](#) for those who cannot access the books in other formats.

Required

- Christakis, Nicholas A, and James H. Fowler. 2009. *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*. New York: Little, Brown and Co.
A hardcopy is available [from the Reed library](#).

Optional and/or Required only for some (please wait for instructions before purchasing)

- Kolaczyk, Eric D., and Gábor Csárdi. 2020. *Statistical Analysis of Network Data with R*. Use R! Cham: Springer International Publishing. ([free online](#))
- De Nooy, Wouter, Andrej Mrvar, and Vladimir Batagelj. 2018. *Exploratory Social Network Analysis with Pajek: Revised and Expanded Edition for Updated Software*. 3rd ed. Cambridge: Cambridge University Press. ([free online](#))

Good books to keep in mind for further information (on reserve or free online):

- Degenne, Alain, and Michel Forse. 1999. *Introducing Social Networks*. London: SAGE Publications, Ltd. ([free online](#))
- Scott, John. 2017. *Social Network Analysis*. 4th ed. Thousand Oaks, CA: SAGE Publications Ltd. ([free online](#))
- Wasserman, Stanley, and Katherine Faust. 1994. *Social Network Analysis: Methods and Applications*. Cambridge, UK: Cambridge University Press.

All readings have been placed on reserve at the library (books) or as Ereadings (books, chapters and articles) available through [Google Drive](#). In addition, the articles are available through journal databases available online from the library, hyperlinked when possible on the moodle. Students should bring a copy of the readings to class each day.

Software (Both Sections):

Slack

We will be making use of Slack, a message and discussion forum and hub for conversation, questions, comments, and related content to this course. See [Appendix: Getting to Know Slack](#) at the end of this document. The nice thing about Slack is that you can easily communicate from a mobile or computer application (or via a URL), and you do not have to go through a painful login to Moodle and navigation to the forums in order to share thoughts, gain or give advance on coding or software challenges, etc. Essentially, you can talk across platforms and reach others through the mechanism most convenient to them. You can also post snippets of code, documents, or web links, etc, easily. Learning Slack is also an important and marketable skill for many potential future jobs. We will discuss the nature of Slack, how to use it, and our collective rules regarding its use, in class. Our course Slack workspace is <https://reed-2024-nss.slack.com/>. We will invite you to join and will give you a handout with more details. Please go through the motions to do so when you see the email.

Laptops:

You will be able to use virtual servers for any of the software packages you are using, RStudio or Pajek/UCInet. You will need to bring a laptop or large tablet with keyboard and pointing device to class each day for the lab portion of the course. If you do not have a laptop or your laptop does not meet [minimum specifications](#), the [Student Technology Equipment Program](#) will let you use a computer for an entire academic year for \$50.

Software:

In this class you will learn how to use network software to utilize empirical network data. You will either be using R through [the RStudio server](#) or Pajek/UCInet on a Windows laptop or through the [Virtual Computer Lab](#). Note that during the lab portion of class we will split into two rooms (PAB 104 and PAB 130).

R

Some students with prior programming experience will use R through RStudio, drawing from multiple software libraries to visualize our networks and calculate basic statistics on them. R can run on Windows, Mac, or Linux environments if you wish to use your own machine; for this class, we will be using Reed's RStudio server, <http://rstudio.reed.edu> — you may wish to log in prior to the class to get comfortable with the environment. You should run through [R, RStudio, RMarkdown, and SNA in R](#) before the second class.

Windows

Those of you without coding experience will also learn how to use network software to utilize empirical network data, in a menu driven framework. We will use two software packages to visualize our networks and calculate basic statistics on them - Pajek and UCInet. Both run only in a Windows environment, or through a virtual server put together by the college that can be found [here](#). You should strive to have the software on your own machine if it can be configured to do so.

UCInet

Individual students pay \$40 for a permanent copy of this program. This can be done at the following link: <https://sites.google.com/site/ucinetsoftware/home>. Choose the download option to avoid paying an extremely hefty shipping fee. The download page is at: <https://sites.google.com/site/ucinetsoftware/downloads>. That said, the full program can be downloaded and used **free** for 90 days, which is a good chunk of the semester. If you wait to download it closer to the time we start using it, you will draw out this timeline for which you could use the software for free for course purposes. [Whether you buy or just try it, you'll download the same program. Buying it just gets you the registration code that you'll need at the end of the 90 days.]

Pajek

This program is free, and can be downloaded at the following URL: <http://mrvar.fdv.uni-lj.si/pajek/>. If you are using a Mac machine, my recommendation is to use the virtual server to access the software outside of class (the required text for this class has a chapter on how to install Pajek on Mac (Appendix 3), but I have been told the virtual server is much faster).

Assignments:

Class participation

Class participation matters in this course a great deal. We expect that everyone will arrive to class with questions, topics, and issues to discuss. If you do not participate, it will be impossible for you to receive an A in this class, and very difficult to receive a B. If you are having trouble with this, come see us and we will brainstorm about ways to make it work. In addition, **you cannot miss more than two classes and pass the course without documentation and approval from us**. This does not mean that there are no grade consequences to missing 1 and/or 2 classes; this means that you can't pass the course with two or more unexcused absences. To be clear, this policy is not at all related to illness considerations, for which we will work to find a way for you to make up for the missed classroom days. Please see us expediently if you find yourself in this situation.

Memos and Discussion Questions

In addition to your class participation, each week you will either 1) submit a reading memo in reaction to the assigned reading, OR 2) a question for discussion, alternating week by week. Prior to the start of class, you will be assigned to a memo group and will follow the deadlines for memo/discussion question submission for that group.

The memos are not meant to be simple summaries of the readings for the day. Instead they are intended to help you organize your ideas and to help situate the readings *as a collective* and in terms of the course thus far. Writing the memo should not be a particularly onerous task. However, it should be thoughtfully attended to and viewed as an organizing element of your preparation for the discussion. It is also a signal to us that you are thoughtfully considering the work at hand. It should include the following elements:

1. a brief statement or set of statements about what you understand to be the driving theoretical mechanisms/research questions presented in the set of readings for the outcomes observed. (Social scientific analysis is built on a premise that authors are generating, or bringing to the table, an argument or set of theoretical arguments that *explain* the factor or factors, dynamics, or processes responsible/important/critical for an outcome to be observed. With this goal in mind, consider the driving questions/outcomes of interest and the primary explanations for these offered by the authors for the day's readings.) Use this part of the memo to show us that you read all of the readings for the day and did some cognitive work to try to integrate them together into a coherent theme. Try to walk a fine line of not given us over-attention to *all* details of each piece but not simply glossing over the set without paying attention to what distinguishes each from the other;
2. an idea or ideas that you appreciated;
3. a puzzle regarding ideas that you did not fully understand and/or a thoughtful critique of one or two particular arguments that you did not find persuasive, and;
4. an unanswered question or thought for discussion that arose while you were doing the reading.

*In your writeup, these elements should **NOT** be "numbered" or in bullet points – rather, discuss them in an integrated manner in paragraph form. Also please address the combined reading set by not focusing solely on just one article or a subset. Note that we don't expect that you will have completely understood everything the reading(s) are offering.*

Memo format and deadline

- Not more than one page, 12 pt font, 1-1.15 spaced (i.e., no more than 500 words)
- **Memos are due by 10pm the day before class.**
- Please upload your memo [to the weekly google folders](#) for the course in **Word doc format only** (no pdfs or google doc sharing please), in the space provided for a given class week. (Note that you can save any google doc as a word doc when working with google.)
- We will read your memo before class and return it to you with some comments at the beginning of class – you do not have to print it out or turn it in. Memos will not be given extensive comments - this is really a way to begin a conversation with us - and we will use an internal check/check plus/check minus grading scheme. Late memos will not be accepted.

Discussion Questions

On the weeks you are not submitting a memo, you will instead post a question for discussion and/or clarification to a shared course document ([archived by class week in the class google folder](#)) that we will use to help structure our discussion for the day. **These questions are due by 10pm the night before class. Please indicate whether your submission is a clarification or discussion question.**

Leading Discussion

Along with a classmate or two, you will be responsible for leading discussion during the semester. A signup sheet will be collected and posted with dates for these assignments. Leaders help shape the discussion by formulating 2–3 questions in advance of our discussion that you could raise for the class, and by taking an active role in facilitating the discussion during conference. In your preparations for leading class, plan to meet briefly before class with your partner(s), discuss the readings, and formulate questions to share with the class. **These are also due by 10pm the day before class, posted to the Moodle Announcements.** We will join you in leading the class that day.

Leaders should meet face to face (or zoom to zoom) to coordinate. Please do not do this work asynchronously over email or a shared google doc - we can generally tell when there is a lack of leader coordination. Please meet in advance of class and discuss together a plan of action for the class period and come up with an appropriate discussion approach.

Class Lab Assignments

Every week we will use 1 of our roughly 3 hours to work with empirical network data. You will complete a series of lab assignments during lab and after class. Many, if not all, of these lab assignments will be handed in to be graded and for comments and feedback from us. **Labs are due by 10pm on the Thursday following class on Monday to [the google folder for your group](#).**

Midterm Paper

For this assignment you will analyze your own personal network (what we call an ego-network). You will begin by completing a social network survey. For this portion of the assignment you will be both survey respondent and interviewer. This will give you a taste of both what it is like to conduct a social network study and what it is like to be a respondent in a social network survey.

For the second portion of the assignment you will act as network analyst. You will calculate some simple measures of the composition and structure of your network and from this get a sense of what your network looks like. Then you will write a short analysis of what you find.

This assignment will be handed out during **Week 3** and is due **Week 5**. You should submit a hard copy of your analysis (the paper) with your survey and calculations stapled on the back. Please also upload your analysis to the moodle at the appropriate link.

Term Paper

Lastly, during the course of the class you will conduct a final research project. This project will explore some aspect of an empirical social network. This project is open-ended and may incorporate network data that you collect, or we may provide options to use already-existing network data (such as our own, or that of others available for download).

In the past, students have analyzed such topics as music collaborations, relationships among bloggers, Reed networks (student study, committee membership relations, etc.), organization interlocks, international trade, co-authorship and bibliometric analysis, linguistic networks, literature connections, and a host of other interesting topics. Regardless of the topic you choose, your project should be

anchored by a substantive or theoretical research question, and based on a general sociological/political understanding of network theory and analysis as presented in the class readings and laboratory sessions.

This analysis will count for a significant part of your final grade, so it should be given a great deal of thought and effort. The project process will go in stages. We will introduce the project near the middle of the semester, you will make decisions about your intended approach, and we will have an opportunity to discuss the project with each other in class. We will devote some of our lab time to work on these projects near the end of the semester. You *must* complete the term paper project to pass this course.

Some Final Notes:

You will be expected to strike a healthy balance in conference between arguing your own position on these issues, listening to others, and helping the class to collectively explore how the authors you read defend their approaches. Each member of the class is expected to abide by the Reed Honor principle, according to which you must both take responsibility on yourself to think about how your actions and words affect others, and share responsibility with your peers for enabling the class as a whole to achieve its highest intellectual aims without alienating or marginalizing anyone. Your regular attendance and active participation in conference are necessary for the class to work. Themes and approaches will shift considerably from one week to the next, and in-class discussions will be necessary for you and your colleagues to demonstrate to each other how they fit together.

As a student at Reed, you have agreed to uphold the Honor Principle. When you submit an assignment with your name on it, you are signifying that all of the work contained therein is yours, unless otherwise cited or referenced. Any ideas or materials taken from another source for either written or oral use must be fully acknowledged. Do not use AI bots such as ChatGPT or “learning support” platforms (e.g., Chegg, CourseHero) unless we authorize a specific use. None of this precludes discussing your work with other students, tutors, or professors, swapping outlines and paper drafts for editing, and so forth; in fact, you are encouraged to do so—and to thank them in your paper, just as we do in our articles. Academic work rests on an exchange of ideas that requires acknowledgment of other scholars’ intellectual work. When in doubt, always cite—if you do not, you are plagiarizing. If it is unclear what that means, [see examples](#) as well as [Reed’s policies](#). If you have questions about citation, please visit the Reed Library [citation guide](#).

Disability accommodations and illness policy

If you need to miss a class, or series of classes, due to illness or injury, you are responsible for emailing us to let us know as soon as possible. You are also responsible for coordinating with us to complete work that you might miss due to absences. It can be challenging to catch up after some time out of class, so let’s collaborate to make a plan for getting up to speed. You are most welcome to wear a mask at any time; we strongly urge you to stay home if you are feeling ill and will work with you to ensure that you catch up if you do.

Students with disability-related accommodations (or any other kind of accommodation) should have DAR send us their accommodations and then contact us individually to determine a plan for implementation.

Finally, please let us know right away about any technical issues you are having with respect to accessing material provided to you during a period away from in person class attendance.

Reading List

Week 1: Labor Day, no class

Week 2: Introduction to the Course

September 9

- Christakis, Nicholas A., and James H. Fowler. 2009. *Connected: The Surprising Power of Our Social Networks and How They Shape Our Lives*. 1st ed. New York: Little, Brown and Co. *Chapters 3-4, 6, and 9. (Purchased Book)*
- Marin, Alexandra, and Barry Wellman. 2011. "Social Network Analysis: An Introduction." In *The SAGE Handbook of Social Network Analysis*, edited by John Scott and Peter J. Carrington, 11–25. SAGE.
- Victor, Jennifer Nicoll, Alexander H. Montgomery, and Mark Lubell. 2017. "Introduction." In *The Oxford Handbook of Political Networks*, edited by Jennifer Nicoll Victor, Alexander H. Montgomery, and Mark Lubell, 1:3–57. Oxford University Press.
<https://doi.org/10.1093/oxfordhb/9780190228217.013.1>. Pages 3-12, 22-29.

Optional good introductions

- Barabási, Albert-László. 2002. *Linked: The New Science of Networks*. Cambridge, MA: Perseus Books Group. <http://www.worldcat.org/oclc/49827465>.
- Blau, Melinda. 2009. "The Ascendance of Consequential Strangers." In *Consequential Strangers: The Power of People Who Don't Seem to Matter-- but Really Do*, 1st ed., xv–xxi, 1–27. New York: WWNorton & Co.
- Emirbayer, Mustafa. 1997. "Manifesto for a Relational Sociology." *American Journal of Sociology* 103 (2): 281–317. <https://doi.org/10.1086/231209>. - another classic
- Pool, Ithiel De Sola, Manfred Kochen. 1978. "Contacts and influence." *Social Networks* 1: 5-51 (through page 25) - early writing about social networks
- Scott, John. 2017. In *Social Network Analysis*, 4th ed., 11–94. Thousand Oaks, CA: SAGE Publications Ltd. <https://doi.org/10.4135/9781529716597>.
- Wasserman and Faust. *Social Network Analysis. Pages 3-22 and 55-59 in Chapter 1. (On reserve)*
- Wellman, Barry. 1997. "Structural Analysis: From Method and Metaphor to Theory and Substance." In *Social Structures: A Network Approach*, edited by Barry Wellman and Stephen D. Berkowitz, 19–61. Greenwich, CT: JAI Press.

Week 3: Origins of Network Theory

— Pajek group submits a memo —

September 16

- Simmel, Georg. 1908. "The Problem of Sociology." In *On Individuality and Social Forms: Selected Writings*, 23–35. University of Chicago Press.
- ———. 1950. "The Triad." In *The Sociology of Georg Simmel*, 145–69. Simon and Schuster.
- Granovetter, Mark S. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 78 (6): 1360–80. <https://doi.org/10.1086/225469>.
- Feld, Scott L. 1981. "The Focused Organization of Social Ties." *American Journal of Sociology* 86 (5): 1015–35. <https://doi.org/10.2307/2778746>.

- ———. 2021. “Reflections on ‘The Focused Organization of Social Ties’ and Its Implications for Bonding and Bridging.” In *Personal Networks: Classic Readings and New Directions in Egocentric Analysis*, edited by Mario L. Small, Brea L. Perry, Bernice Pescosolido, and Edward B. Smith, 360–70. Cambridge University Press. *Brief response by Feld and coauthors to their canonical piece.*

Lab

- De Nooy et al. *Exploratory Social Network Analysis with Pajek*. Chapter 1. SKIM Appendix 1 and 2 so that you are generally aware of the options in terms of the topics discussed.

Optional and/or for term paper purposes

- Bott, Elizabeth. 1955. “Urban Families: Conjugal Roles and Social Networks.” *Human Relations* 8 (4): 345–84.
- Lynn, Freda, and Joel Podolny. 2011. “Homophily and the Focused Organization of Ties.” *The Oxford Handbook of Analytical Sociology*, January. <https://doi.org/10.1093/oxfordhb/9780199215362.013.22>.
- Nadel, S. F. 1957. *The Theory of Social Structure*. 1-19, 125-152. London, UK: Cohen and West.
- Wellman, Barry. 1979. “The Community Question: The Intimate Networks of East Yorkers.” *American Journal of Sociology* 84 (5): 1201–31. <http://www.journals.uchicago.edu/doi/abs/10.1086/226906>.

Week 4: Local Networks

— R group submits a memo —

September 23

- Marsden, Peter V. 1987. “Core Discussion Networks of Americans.” *American Sociological Review* 52 (1): 122–31. <https://doi.org/10.2307/2095397>.
- Bearman, P., and P. Parigi. 2004. “Cloning Headless Frogs and Other Important Matters: Conversation Topics and Network Structure.” *Social Forces* 83 (2): 535–57. <https://doi.org/10.1353/sof.2005.0001>.
- Rainie, Lee, and Barry Wellman. 2012. “Networked Relationships.” In *Networked: The New Social Operating System*, 117–46. Cambridge, United States: MIT Press. <http://ebookcentral.proquest.com/lib/reed/detail.action?docID=3339439>.

Lab

- De Nooy et al. *Exploratory Social Network Analysis with Pajek*, Chapter 2.

Optional/Background Reading on Topic

- Caplow, Theodore. 1982. “Christmas Gifts and Kin Networks.” *American Sociological Review* 47 (3): 383–92. <https://doi.org/10.2307/2094994>.
- DiPrete, Thomas A., Andrew Gelman, Tyler McCormick, Julien Teitler, and Tian Zheng. 2011. “Segregation in Social Networks Based on Acquaintanceship and Trust.” *American Journal of Sociology* 116 (4): 1234–83. <https://doi.org/10.1086/659100>. *Long appendix, skip formulas.*
- Fischer, Claude S. 1982. *To Dwell Among Friends: Personal Networks in Town and City*. Chapter 1-3, 7-10, 12-16. University of Chicago Press.
- Moore, Gwen. 1990. “Structural Determinants of Men’s and Women’s Personal Networks.” *American Sociological Review* 55 (5): 726–35. <https://doi.org/10.2307/2095868>.
- Wellman, Barry, and Scot Wortley. 1990. “Different Strokes from Different Folks: Community Ties and Social Support.” *American Journal of Sociology* 96 (3): 558–88. <http://www.journals.uchicago.edu/doi/abs/10.1086/229572>.

Further reading on the isolation-discussion networks debate

- Brashears, Matthew E. 2011. "Small Networks and High Isolation? A Reexamination of American Discussion Networks." *Social Networks* 33 (4): 331–41. <https://doi.org/10.1016/j.socnet.2011.10.003>.
- Fischer, Claude S. 2009. "The 2004 GSS Finding of Shrunk Social Networks: An Artifact?" *American Sociological Review* 74 (4): 657–69. <https://doi.org/10.1177/000312240907400408>.
- McPherson, Miller, Lynn Smith-Lovin, and Matthew E. Brashears. 2006. "Social Isolation in America: Changes in Core Discussion Networks over Two Decades." *American Sociological Review* 71 (3): 353–75. <http://journals.sagepub.com/doi/abs/10.1177/000312240607100301>.
- ——. 2009. "Models and Marginals: Using Survey Evidence to Study Social Networks." *American Sociological Review* 74 (4): 670–81. <https://doi.org/10.1177/000312240907400409>.
- Paik, Anthony, and Kenneth Sanchagrin. 2013. "Social Isolation in America: An Artifact." *American Sociological Review* 78 (3): 339–60. <https://doi.org/10.1177/0003122413482919>.
- Small, Mario Luis. 2017. *Someone To Talk To*. 1st ed. United Kingdom: Oxford University Press. <https://doi.org/10.1093/oso/9780190661427.001.0001>.
- Small, Mario Luis, Vontrese Deeds Pamphile, and Peter McMahan. 2015. "How Stable Is the Core Discussion Network?" *Social Networks* 40 (January):90–102. <https://doi.org/10.1016/j.socnet.2014.09.001>.

Week 5: Centrality

— Pajek group submits a memo —

September 30

NOTE: First project due Saturday, October 5, 2024 by 11:59pm

- "Centrality." 2001. February 23, 2001. <http://www.analytictech.com/networks/centrali.htm>.
- Scott, John. 2017. "Popularity, Mediation and Exclusion." In *Social Network Analysis*, 4 edition, 96–111. Thousand Oaks, CA: SAGE Publications Ltd.(free online)
- Baker, Wayne E., and Robert R. Faulkner. 1993. "The Social Organization of Conspiracy: Illegal Networks in the Heavy Electrical Equipment Industry." *American Sociological Review* 58 (6): 837–60. <https://doi.org/10.2307/2095954>.
- Ehrenberg, Rachel. 2011. "Information Flow Can Reveal Dirty Deeds." *Science News*, July 2, 2011. <https://www.sciencenews.org/article/information-flow-can-reveal-dirty-deeds>. *Modern day follow-up to Baker and Faulkner*
- Krebs, Valdis E. 2002. "Mapping Networks of Terrorist Cells." *Connections* 24 (3): 43–52. <http://www.orgnet.com/MappingTerroristNetworks.pdf>.
- Rossman, Gabriel, Nicole Esparza, and Phillip Bonacich. 2010. "I'd Like to Thank the Academy, Team Spillovers, and Network Centrality." *American Sociological Review* 75 (1): 31–51. <https://doi.org/10.1177/0003122409359164>. *For this article, try not to worry too much about understanding the full empirical models.*

Lab

- De Nooy et al. *Exploratory Social Network Analysis with Pajek*, Chap. 6.

Additional Readings that Deal with Centrality and its Mechanisms (Optional Background)

- Alderson, Arthur S., and Jason Beckfield. 2004. "Power and Position in the World City System." *American Journal of Sociology* 109 (4): 811–51. <https://doi.org/10.1086/378930>.
- Bonacich, Phillip. 1987. "Power and Centrality: A Family of Measures." *American Journal of Sociology* 92 (5): 1170–82. <https://doi.org/10.1086/228631>.
- Cook, Karen S., and Toshio Yamagishi. 1992. "Power in Exchange Networks: A Power-Dependence Formulation." *Social Networks* 14 (3–4): 245–65. [https://doi.org/10.1016/0378-8733\(92\)90004-Q](https://doi.org/10.1016/0378-8733(92)90004-Q).
- Feld, Scott L. 1991. "Why Your Friends Have More Friends Than You Do." *American Journal of Sociology* 96 (6): 1464–77. <https://doi.org/10.1086/229693>.
- Friedkin, Noah E. 1991. "Theoretical Foundations for Centrality Measures." *American Journal of Sociology* 96 (6): 1478–1504. <https://doi.org/10.1086/229694>.
- ———. 1993. "Structural Bases of Interpersonal Influence in Groups: A Longitudinal Case Study." *American Sociological Review* 58 (6): 861–72. <https://doi.org/10.2307/2095955>.
- Smith, Chris M., and Andrew V. Papachristos. 2016. "Trust Thy Crooked Neighbor: Multiplexity in Chicago Organized Crime Networks." *American Sociological Review* 81 (4): 644–67. <https://doi.org/10.1177/0003122416650149>. *More on organized crime networks*
- Wasserman, Stanley, and Katherine Faust. 1994. *Social Network Analysis: Methods and Applications*. 169–219. Cambridge, UK: Cambridge University Press.

Week 6: Brokerage and Structural Holes

— R group submits a memo —

October 7

- Burt, Ronald S. 1998. "The Gender of Social Capital." *Rationality and Society* 10 (1): 5–46. <https://doi.org/10.1177/104346398010001001>.
- ———. 2004. "Structural Holes and Good Ideas." *American Journal of Sociology* 110 (2): 349–99. <https://doi.org/10.1086/421787>.
- Fernandez, Roberto M., and Roger V. Gould. 1994. "A Dilemma of State Power: Brokerage and Influence in the National Health Policy Domain." *American Journal of Sociology* 99 (6): 1455–91. <http://www.jstor.org.proxy.library.reed.edu/stable/2782581>.
- Goddard, Stacie E. 2012. "Brokering Peace: Networks, Legitimacy, and the Northern Ireland Peace Process." *International Studies Quarterly* 56 (3): 501–15. <https://doi.org/10.1111/j.1468-2478.2012.00737.x>.

Lab

- De Nooy et al. *Exploratory Social Network Analysis with Pajek*, Chapter 7.

Other Readings that Deal with Brokerage and its Mechanisms (Optional Background)

- Blok, Anton. 1974. *The Mafia of a Sicilian Village, 1860-1960: A Study of Violent Peasant Entrepreneurs*. Waveland Press.
- Burt, Ronald S. 2005. In *Brokerage and Closure: An Introduction to Social Capital*, chapters 1,3. Oxford: Oxford University Press. <http://www.worldcat.org/oclc/50175791>.
- Gould, Roger V. 1989. "Power and Social Structure in Community Elites." *Social Forces* 68 (2): 531–52. <https://doi.org/10.2307/2579259>.

- Gould, Roger V., and Roberto M. Fernandez. 1989. "Structures of Mediation: A Formal Approach to Brokerage in Transaction Networks." *Sociological Methodology* 19:89–126robust. <https://doi.org/10.2307/270949>.
- Granovetter, Mark. 1995. *Getting a Job: A Study of Contacts and Careers*. University of Chicago Press.
- Lee, Nancy Howell. 2014. *The Search for an Abortifacient: The Classic Study of How American Women Coped with Unwanted Pregnancy before Roe v. Wade*. Open Road Media.
- Padgett, John F., and Christopher K. Ansell. 1993. "Robust Action and the Rise of the Medici, 1400-1434." *American Journal of Sociology* 98 (6): 1259–1319. <https://doi.org/10.1086/230190>.
- Ripp, Allan. 2017. "Opinion | How Not to Get a Job." *The New York Times*, July 7, 2017, sec. Opinion. <https://www.nytimes.com/2017/07/07/opinion/how-not-to-get-a-job.html>.
- Uzzi, Brian. 1996. "The Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect." *American Sociological Review* 61 (4): 674–98. <https://doi.org/10.2307/2096399>.

Week 7: Relations through Associations

— Pajek group submits a memo —

October 14

- Fernandez, Roberto M., and Doug McAdam. 1988. "Social Networks and Social Movements: Multiorganizational Fields and Recruitment to Mississippi Freedom Summer." *Sociological Forum* 3 (3): 357–82. <https://doi.org/10.1007/BF01116431>.
- Wasserman, Stanley, and Katherine Faust. 1994. In *Social Network Analysis: Methods and Applications*, 291–307. Cambridge, UK: Cambridge University Press.
- Burris, Val. 2005. "Interlocking Directorates and Political Cohesion among Corporate Elites." *American Journal of Sociology* 111 (1): 249–83. <http://www.journals.uchicago.edu/doi/abs/10.1086/428817>.
- Montgomery, Alexander H. 2016. "Centrality in Transnational Governance: How Networks of International Institutions Shape Power Processes." In *The New Power Politics: Networks and Transnational Security Governance*, edited by Deborah D Avant and Oliver Westerwinter, 19–38. Oxford University Press.

Lab

- De Nooy et al. *Exploratory Social Network Analysis with Pajek*, Chapter 5.

Background Reading on Duality (Optional)

- Bearman, Peter S. 1991. "The Social Structure of Suicide." *Sociological Forum* 6 (3): 501–24. <http://www.jstor.org/stable/684516>.
- Borgatti, Stephen P., and Martin G. Everett. 1997. "Network Analysis of 2-Mode Data." *Social Networks* 19 (3): 243–69. [https://doi.org/10.1016/S0378-8733\(96\)00301-2](https://doi.org/10.1016/S0378-8733(96)00301-2).
- Breiger, Ronald L. 1974. "The Duality of Persons and Groups." *Social Forces* 53 (2): 181–90. <https://doi.org/10.2307/2576011>.
- Cornwell, Benjamin, and Jill Ann Harrison. 2004. "Union Members and Voluntary Associations: Membership Overlap as a Case of Organizational Embeddedness." *American Sociological Review* 69 (6): 862–81. <https://doi.org/10.2307/3593046>.
- Faust, Katherine. 1997. "Centrality in Affiliation Networks." *Social Networks* 19 (2): 157–91. [https://doi.org/10.1016/S0378-8733\(96\)00300-0](https://doi.org/10.1016/S0378-8733(96)00300-0).

- McPherson, J. Miller. 1982. "Hypernetwork Sampling: Duality and Differentiation among Voluntary Organizations." *Social Networks* 3 (4): 225–49. [https://doi.org/10.1016/0378-8733\(82\)90001-6](https://doi.org/10.1016/0378-8733(82)90001-6).
- Mizruchi, Mark S. 1996. "What Do Interlocks Do? An Analysis, Critique, and Assessment of Research on Interlocking Directorates." *Annual Review of Sociology* 22:271–98. <https://doi.org/10.2307/2083432>. *This is the article that Burriss is riffing off of*
- Mizruchi, Mark S., and Linda Brewster Stearns. 1988. "A Longitudinal Study of the Formation of Interlocking Directorates." *Administrative Science Quarterly* 33 (2): 194–210. <https://doi.org/10.2307/2393055>. *Lots of great work on director interlocks, such as that by Mizruchi.*
- Moody, James. 2004. "The Structure of a Social Science Collaboration Network: Disciplinary Cohesion from 1963 to 1999." *American Sociological Review* 69 (2): 213–38. <https://doi.org/10.1177/000312240406900204>.
- Simmel, Georg. 1955. "The Web of Group-Affiliations." In *Conflict and the Web of Group-Affiliations*, 138–67. Free Press.

Week 8: Fall Break, no class

Week 9: Social Capital

— *Everyone submits a memo* —

October 28

Part 1: Social capital as it relates to individuals and communities, facilitated by organizations

- Small, Mario Luis. 2010. "Unanticipated Gains: Origins of Network Inequality in Everyday Life." In *Unanticipated Gains: Origins of Network Inequality in Everyday Life*, Reprint edition, 3–27, 51–156. New York: Oxford University Press. https://catalog.library.reed.edu/permalink/f/13d334c/TN_cdi_askewsholts_vlebooks_9780199888856.
- Torres, Stacy. 2019. "On Elastic Ties: Distance and Intimacy in Social Relationships." *Sociological Science* 6:235–63. <https://doi.org/10.15195/v6.a10>.

Part 2: Social capital as it relates to civil society

- Putnam, Robert D. 1995. "Bowling Alone: America's Declining Social Capital." *Journal of Democracy* 6 (1): 65–78. <https://doi.org/10.1353/jod.1995.0002>.

Lab

- In-class discussion of final project

Optional

- Berman, Sheri. 1997. "Civil Society and the Collapse of the Weimar Republic." *World Politics* 49 (3): 401–29. <http://www.jstor.org/stable/25054008>. *Known as "Bowling with Hitler"*
- Coleman, James S. 1988. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94 (January):95–120. <http://www.jstor.org/stable/2780243>.
- Cranford, Cynthia J. 2005. "Networks of Exploitation: Immigrant Labor and the Restructuring of the Los Angeles Janitorial Industry." *Social Problems* 52 (3): 379–97. <https://doi.org/10.1525/sp.2005.52.3.379>.

- Fernandez, Roberto M., Emilio J. Castilla, and Paul Moore. 2000. "Social Capital at Work: Networks and Employment at a Phone Center." *American Journal of Sociology* 105 (5): 1288–1356. <http://www.journals.uchicago.edu/doi/abs/10.1086/210432>.
- Garcia-Navarro, Lulu. 2024. "Robert Putnam Knows Why You're Lonely." *The New York Times*, July 13, 2024, sec. Magazine. <https://www.nytimes.com/2024/07/13/magazine/robert-putnam-interview.html>.
- Institute of Politics Harvard Kennedy School, dir. 2021. *Bowling Alone: The Collapse and Revival of Community in America*. <https://www.youtube.com/watch?v=0fM4pbTkHKQ>.
- Royster, Deirdre. 2003. *Race and the Invisible Hand: How White Networks Exclude Black Men from Blue-Collar Jobs*. Berkeley: University of California Press. <http://ebookcentral.proquest.com/lib/reed/detail.action?docID=224041>.
- Small, Mario L., Kristina Brant, and Maleah Fekete. 2024. "The Avoidance of Strong Ties." *American Sociological Review* 89 (4): 615–49. <https://doi.org/10.1177/00031224241263602>.
- Small, Mario Luis. 2006. "Neighborhood Institutions as Resource Brokers: Childcare Centers, Interorganizational Ties, and Resource Access among the Poor." *Social Problems* 53 (2): 274–92. <https://doi.org/10.1525/sp.2006.53.2.274>.
- Smilde, David. 2005. "A Qualitative Comparative Analysis of Conversion to Venezuelan Evangelicalism: How Networks Matter." *American Journal of Sociology* 111 (3): 757–96. <https://doi.org/10.1086/497306>.
- Smith, Sandra Susan. 2005. "'Don't Put My Name on It': Social Capital Activation and Job-Finding Assistance among the Black Urban Poor." *American Journal of Sociology* 111 (1): 1–57. <https://doi.org/10.1086/428814>.
- Stack, Carol B. 2008. *All Our Kin: Strategies For Survival In A Black Community*, Chapter 2-4, 6, and 8. Basic Books. *Don't worry, this is a quick read, and for many who have taken SOC 211, a review. (Purchased Book)*
- Wejnert, Barbara. 2005. "Diffusion, Development, and Democracy, 1800-1999." *American Sociological Review* 70 (1): 53–81. <https://doi.org/10.1177/000312240507000104>.

Week 10: Connectivity: Small Worlds

— R group submits a memo —

November 4

- Travers, Jeffrey, and Stanley Milgram. 1969. "An Experimental Study of the Small World Problem." *Sociometry* 32 (4): 425–43. <https://doi.org/10.2307/2786545>.
- Watts, Duncan J. 1999. "Networks, Dynamics, and the Small-World Phenomenon." *American Journal of Sociology* 105 (2): 493–527. <https://doi.org/10.1086/210318>. *Try to stick with it throughout the mathematics*
- Uzzi, Brian, and Jarrett Spiro. 2005. "Collaboration and Creativity: The Small World Problem." *American Journal of Sociology* 111 (2): 447–504. <https://doi.org/10.1086/432782>.
- Weeden, Kim, and Benjamin Cornwell. 2020. "The Small-World Network of College Classes: Implications for Epidemic Spread on a University Campus." *Sociological Science* 7:222–41. <https://doi.org/10.15195/v7.a9>.

Lab

- De Nooy et al. *Exploratory Social Network Analysis with Pajek*, Chapter 13.

Additional Background Reading (Optional)

- Amaral, Luis A. Nunes, Antonio Scala, Marc Barthelemy, and H. Eugene Stanley. 2000. "Classes of Small-World Networks." *Proceedings of the National Academy of Sciences* 97 (21): 11149–52. <http://www.pnas.org/content/97/21/11149.short>.
- Barabási, Albert-László. 2002. "Six Degrees of Separation—Small Worlds." In *Linked: The New Science of Networks*, 25–54. Cambridge, MA: Perseus Books Group. <http://www.worldcat.org/oclc/49827465>.
- Brudner, Lilyan A., and Douglas R. White. 1997. "Class, Property, and Structural Endogamy: Visualizing Networked Histories." *Theory and Society* 26 (2–3): 161–208. <https://doi.org/10.1023/A:1006883119289>.
- Fleming, Lee, Charles King, and Adam I. Juda. 2007. "Small Worlds and Regional Innovation." *Organization Science* 18 (6): 938–54. <https://doi.org/10.1287/orsc.1070.0289>.
- Killworth, Peter D, and H. Russell Bernard. 1978. "The Reversal Small-World Experiment." *Social Networks* 1 (2): 159–92. [https://doi.org/10.1016/0378-8733\(78\)90018-7](https://doi.org/10.1016/0378-8733(78)90018-7).
- Lee, Nancy Howell. 2014. In *The Search for an Abortionist: The Classic Study of How American Women Coped with Unwanted Pregnancy before Roe v. Wade*, Esp. chapters 1, 5, and 8. Open Road Media.
- Newman, Mark E. J. 2000. "Models of the Small World." *Journal of Statistical Physics* 101 (3): 819–41. <http://www.springerlink.com/index/W2WV1X715216605W.pdf>.
- ———. 2001. "Who Is the Best Connected Scientist? A Study of Scientific Coauthorship Networks." *Physical Review E* 64 (1). <https://doi.org/10.1103/PhysRevE.64.016132>.
- Rapoport, Anatol, and William J Horvath. 1961. "A Study of a Large Sociogram." *Systems Research and Behavioral Science* 6 (4): 279–91.
- Sola Pool, Ithiel de, and Manfred Kochen. 1978. "Contacts and Influence." *Social Networks* 1 (1): 5–51. [https://doi.org/10.1016/0378-8733\(78\)90011-4](https://doi.org/10.1016/0378-8733(78)90011-4).
- Watts, Duncan J. 1999. *Small Worlds: The Dynamics of Networks between Order and Randomness*. Princeton, NJ: Princeton University Press. <http://www.worldcat.org/oclc/40602717>.

Week 11: Connectivity and Cohesion

— *Pajek group submits a memo* —

November 11

- Bearman, Peter S., James Moody, and Katherine Stovel. 2004. "Chains of Affection: The Structure of Adolescent Romantic and Sexual Networks." *American Journal of Sociology* 110 (1): 44–91. <https://doi.org/10.1086/386272>.
- Mojola, Sanyu A. 2011. "Fishing in Dangerous Waters: Ecology, Gender and Economy in HIV Risk." *Social Science & Medicine* 72 (2): 149–56. <https://doi.org/10.1016/j.socscimed.2010.11.006>.
- Moody, James, and Douglas R. White. 2003. "Structural Cohesion and Embeddedness: A Hierarchical Concept of Social Groups." *American Sociological Review* 68 (1): 103–27. <https://doi.org/10.2307/3088904>. 109–127 are optional (*Cohesive Blocking forward*)
- Morris, Martina, and Mirjam Kretzschmar. 1997. "Concurrent Partnerships and the Spread of HIV." *AIDS (London, England)* 11 (5): 641–48.

Lab

- De Nooy et al. *Exploratory Social Network Analysis with Pajek*, Chapter 3.

Background Reading (Optional)

- Baker, Wayne E. 1984. "The Social Structure of a National Securities Market." *American Journal of Sociology* 89 (4): 775–811. <https://doi.org/10.1086/227944>.
- Bearman, Peter, Robert Faris, and James Moody. 1999. "Blocking the Future: New Solutions for Old Problems in Historical Social Science." *Social Science History* 23 (4): 501–33. <https://doi.org/10.2307/1171636>.
- Erikson, Emily, and Peter Bearman. 2006. "Malfeasance and the Foundations for Global Trade: The Structure of English Trade in the East Indies, 1601–1833." *American Journal of Sociology* 112 (1): 195–230. <http://www.journals.uchicago.edu/doi/abs/10.1086/502694>.
- Frank, Kenneth A., and Jeffrey Y. Yasumoto. 1998. "Linking Action to Social Structure within a System: Social Capital within and between Subgroups." *American Journal of Sociology* 104 (3): 642–86. <http://dx.doi.org/10.1086/210083>.
- Klovdahl, Alden S. 1985. "Social Networks and the Spread of Infectious Diseases: The AIDS Example." *Social Science & Medicine* 21 (11): 1203–16. <http://www.sciencedirect.com/science/article/pii/0277953685902692>.
- Lincoln, James R., and Jon Miller. 1979. "Work and Friendship Ties in Organizations: A Comparative Analysis of Relation Networks." *Administrative Science Quarterly* 24 (2): 181–99. <https://doi.org/10.2307/2392493>.
- Moody, James. 2001a. "Peer Influence Groups: Identifying Dense Clusters in Large Networks." *Social Networks* 23 (4): 261–83. <http://www.sciencedirect.com/science/article/pii/S0378873301000429>.
- ———. 2001b. "Race, School Integration, and Friendship Segregation in America." *American Journal of Sociology* 107 (3): 679–716. <http://www.journals.uchicago.edu/doi/abs/10.1086/338954>.
- ———. 2004. "The Structure of a Social Science Collaboration Network: Disciplinary Cohesion from 1963 to 1999." *American Sociological Review* 69 (2): 213–38. <https://doi.org/10.1177/000312240406900204>.
- Scott, John. 2017. "Groups, Factions and Social Divisions." In *Social Network Analysis*, 4th ed., 113–35. Thousand Oaks, CA: SAGE Publications Ltd. <https://doi.org/10.4135/9781529716597>.
- Wasserman, Stanley, and Katherine Faust. 1994. In *Social Network Analysis: Methods and Applications*, 249–67. Cambridge, UK: Cambridge University Press.

Week 12: Roles and Structural Equivalence

— R group submits a memo —

November 18

- Alderson, Arthur S., and Jason Beckfield. 2004. "Power and Position in the World City System." *American Journal of Sociology* 109 (4): 811–51. <https://doi.org/10.1086/378930>.
- Herman, Nancy J. 1984. "Conflict in the Church: A Social Network Analysis of an Anglican Congregation." *Journal for the Scientific Study of Religion* 23 (1): 60–74. <https://doi.org/10.2307/1385457>.
- Please consider the case you are doing for your term paper project. Spend a moment or two jotting down - seriously - some ideas about how principles of blockmodeling and structural equivalence could inform your project. Do you have data (or will you have data) that would lend itself to blockmodeling techniques? Describe in what way. We will discuss your examples in class.

Lab

- De Nooy et al. *Exploratory Social Network Analysis with Pajek*. Read section 12.3 on the concept of structural equivalence [pp.322-325 only – skip the clustering application], then continue with sections 12.4-12.5 on blockmodels [pp.331-345].

Additional Background Reading (Optional)

- Bearman, Peter S., and Kevin D. Everett. 1993. "The Structure of Social Protest, 1961–1983." *Social Networks* 15 (2): 171–200.
<http://www.sciencedirect.com/science/article/pii/0378873393900045>.
- Brieger, Ronald L. 1976. "Career Attributes and Network Structure: A Blockmodel Study of a Biomedical Research Specialty." *American Sociological Review* 41 (1): 117–35.
<https://doi.org/10.2307/2094376>.
- Burt, Ronald S. 1976. "Positions in Networks." *Social Forces* 55 (1): 93–122.
<https://doi.org/10.2307/2577097>.
- Friedkin, Noah E. 1984. "Structural Cohesion and Equivalence Explanations of Social Homogeneity." *Sociological Methods & Research* 12 (3): 235–61.
<https://doi.org/10.1177/0049124184012003001>.
- Michael, Judd H. 1997. "Labor Dispute Reconciliation in a Forest Products Manufacturing Facility." *Forest Products Journal; Madison* 47 (11/12): 41–45.
<https://search.proquest.com/docview/214629050/abstract/263000947B814E98PQ/1>.
- Padgett, John F., and Christopher K. Ansell. 1993. "Robust Action and the Rise of the Medici, 1400-1434." *American Journal of Sociology* 98 (6): 1259–1319. <https://doi.org/10.1086/230190>.
- Scott, John. 2017. "Structural Locations, Classes and Positions." In *Social Network Analysis*, 4th ed., 137–55. Thousand Oaks, CA: SAGE Publications Ltd.
<https://doi.org/10.4135/9781529716597>.

Week 13: Thanksgiving Break, no class

We will not meet on Monday before Thanksgiving. Please use this time you would have spent doing class prep/in class to make some headway on your final projects, meet with us in person or remotely to ask questions, and check in with classmates for feedback on your project plans and direction.

Week 14 Part 1: Dynamic Networks, Diffusion, and Peer Influence (REMOTE)

— Pajek group submits a memo —

December 2

- Cambridge Intelligence. 2022. *Graphing Time-Based Data: A Guide to Dynamic Network Visualization*. <https://www.youtube.com/watch?v=x1-jw1lGh2A>. 20-minute presentation that walks through a variety of ways to present dynamic networks, many of which can be done without animation. Useful despite being an advertisement for their product.
- Ognyanova, Katya. 2023. "Static and Dynamic Network Visualization with R: 7. Dynamic Network Visualizations with Ndtv-D3." *Katya Ognyanova* (blog). June 26, 2023.
<https://kateto.net/sunbelt2023.html#dynamic-network-visualizations-with-ndtv-d3>. Some examples of dynamic visualizations, complete with R code. **OPTIONAL**.
- Moody, James. 2002. "The Importance of Relationship Timing for Diffusion." *Social Forces* 81 (1): 25–56. <https://doi.org/10.1353/sof.2002.0056>.

- Christakis, Nicholas A., and James H. Fowler. 2007. "The Spread of Obesity in a Large Social Network over 32 Years." *New England Journal of Medicine* 357 (4): 370–79. <https://doi.org/10.1056/NEJMs066082>.
- Aven, Brandy L. 2015. "The Paradox of Corrupt Networks: An Analysis of Organizational Crime at Enron." *Organization Science* 26 (4): 980–96. <https://doi.org/10.1287/orsc.2015.0983>.

Optional or further reading

- Abbott, Andrew, and Alexandra Hrycak. 1990. "Measuring Resemblance in Sequence Data: An Optimal Matching Analysis of Musicians' Careers." *American Journal of Sociology* 96 (1): 144–85. <https://doi.org/10.2307/2780695>.
- Ahuja, Radhika, Charlotte Huang, Sydney Kovach, and Laurel Woods. 2020. "Modeling the Spread of COVID-19 in UCLA Classrooms." May 12, 2020. <https://stack.dailybruin.com/2020/05/12/covid-model/>. *Read entire article and also watch the short video at the bottom of the page titled, "The Making of The Stack's COVID 19 Graphic"*.
- Centola, Damon. 2010. "The Spread of Behavior in an Online Social Network Experiment." *Science* 329 (5996): 1194–97. <https://doi.org/10.1126/science.1185231>.
- Christakis, Nicholas A., and James H. Fowler. 2008. "The Collective Dynamics of Smoking in a Large Social Network." *New England Journal of Medicine* 358 (21): 2249–58. <http://content.nejm.org/cgi/content/abstract/358/21/2249>.
- DiMaggio, Paul, and Filiz Garip. 2011. "How Network Externalities Can Exacerbate Intergroup Inequality." *American Journal of Sociology* 116 (6): 1887–1933. <https://doi.org/10.1086/659653>.
- Hughes, Melanie M., Lindsey Peterson, Jill Ann Harrison, and Pamela Paxton. 2009. "Power and Relation in the World Polity: The INGO Network Country Score, 1978–1998." *Social Forces* 87 (4): 1711–42. <https://doi.org/10.1353/sof.0.0217>.
- Klovdahl, Alden S. 1985. "Social Networks and the Spread of Infectious Diseases: The AIDS Example." *Social Science & Medicine* 21 (11): 1203–16. <http://www.sciencedirect.com/science/article/pii/0277953685902692>.
- Mayhew, Bruce H., and Roger L. Levinger. 1976. "On the Emergence of Oligarchy in Human Interaction." *American Journal of Sociology* 81 (5): 1017–49. <https://www.jstor.org/stable/2777554>.
- Moody, James, Daniel A McFarland, and Skye Bender-deMoll. 2005. "Dynamic Network Visualization." *American Journal of Sociology* 110 (4): 1206–41, optional: read pages 1206-1222. <https://doi.org/10.1086/421509>.
- Powell, Walter W., Kenneth W. Koput, and Laurel Smith-Doerr. 1996. "Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology." *Administrative Science Quarterly* 41 (1): 116–45. <https://doi.org/10.2307/2393988>.
- Powell, Walter W., Douglas R. White, Kenneth W. Koput, and Jason Owen-Smith. 2005. "Network Dynamics and Field Evolution: The Growth of Interorganizational Collaboration in the Life Sciences." *American Journal of Sociology* 110 (4): 1132–1205. <http://www.journals.uchicago.edu/doi/abs/10.1086/421508>. *This paper has a really long appendix and is really about 60 pages.*
- Rawlings, Craig M., Daniel A. McFarland, Linus Dahlander, and Dan Wang. 2015. "Streams of Thought: Knowledge Flows and Intellectual Cohesion in a Multidisciplinary Era." *Social Forces* 93 (4): 1687–1722. <https://doi.org/10.1093/sf/sov004>.
- Schaefer, David R., John M. Light, Richard A. Fabes, Laura D. Hanish, and Carol Lynn Martin. 2010. "Fundamental Principles of Network Formation among Preschool Children." *Social Networks* 32 (1): 61–71. <https://doi.org/10.1016/j.socnet.2009.04.003>.
- Schelling, Thomas C. 1978. *Micromotives and Macrobehavior*. Norton.

- Stark, David, and Balázs Vedres. 2006. "Social Times of Network Spaces: Network Sequences and Foreign Investment in Hungary." *American Journal of Sociology* 111 (5): 1367–1411. <https://doi.org/10.1086/499507>.
- Stovel, Katherine. 2001. "Local Sequential Patterns: The Structure of Lynching in the Deep South, 1882–1930." *Social Forces* 79 (3): 843–80. <https://doi.org/10.1353/sof.2001.0026>.
- Stovel, Katherine, Michael Savage, and Peter Bearman. 1996. "Ascription into Achievement: Models of Career Systems at Lloyds Bank, 1890-1970." *American Journal of Sociology* 102 (2): 358–99. <https://www.jstor.org/stable/2782629>.
- Zaheer, Akbar, and Giuseppe Soda. 2009. "Network Evolution: The Origins of Structural Holes." *Administrative Science Quarterly* 54 (1): 1–31. <https://doi.org/10.2189/asqu.2009.54.1.1>.

Week 14 Part 2 (NOTE: FRIDAY SESSION): Presentations/final discussions 12-3 PAB 104 and 131

December 6

- Paper Presentations, No Reading Assigned

Week 15: Critiques of Network Theories of Social Structure

— R group submits a memo —

December 9

- Emirbayer, Mustafa, and Jeff Goodwin. 1994. "Network Analysis, Culture, and the Problem of Agency." *American Journal of Sociology* 99 (6): 1411–54. <https://doi.org/10.2307/2782580>.
- McFarland, Daniel A., Kevin Lewis, and Amir Goldberg. 2016. "Sociology in the Era of Big Data: The Ascent of Forensic Social Science." *The American Sociologist* 47 (1): 12–35. <https://doi.org/10.1007/s12108-015-9291-8>.
- Mische, Ann. 2011. "Relational Sociology, Culture, and Agency." In *The SAGE Handbook of Social Network Analysis*, edited by John Scott and Peter J. Carrington, 80–97. SAGE.
- Pachucki, Mark A., and Ronald L. Breiger. 2010. "Cultural Holes: Beyond Relationality in Social Networks and Culture." *Annual Review of Sociology* 36 (1): 205–24. <https://doi.org/10.1146/annurev.soc.012809.102615>.
- Scott, John. 2011. "Social Physics and Social Networks." In *The SAGE Handbook of Social Network Analysis*, edited by John Scott and Peter J. Carrington, 55–66. SAGE.
- **NOTE: Respond to the articles and also feel free to bring in new critiques of your own, besides those of the authors.**

Additional Background Reading (Optional)

- Brint, Steven. 1992. "Hidden Meanings: Cultural Content and Context in Harrison White's Structural Sociology." *Sociological Theory* 10 (2): 194–208. <https://doi.org/10.2307/201958>.
- Hedström, Peter. 1998. "Rational Choice and Social Structure: On Rational-Choice Theorizing in Sociology." In *Social Theory and Human Agency*, edited by Björn Wittrock. SAGE Publications, Limited.
- McFarland, Daniel A, and H Richard McFarland. 2015. "Big Data and the Danger of Being Precisely Inaccurate." *Big Data & Society* 2 (2): 1–4. <https://doi.org/10.1177/2053951715602495>.
- Swidler, Ann. 1986. "Culture in Action: Symbols and Strategies." *American Sociological Review* 51 (2): 273–86. <https://doi.org/10.2307/2095521>.
- White, Harrison C. 1992. "Social Grammar for Culture: Reply to Steven Brint." *Sociological Theory* 10 (2): 209–13. <https://doi.org/10.2307/201959>.

Appendix: Getting to Know Slack

Background: In our course this semester we will also be making use of Slack, a message and discussion forum and hub for conversation, questions, comments, and related content to this course. The nice thing about Slack is that you can easily communicate from a mobile or computer application (or via a URL), and you do not have to go through the painful login to Moodle and navigating to the forums in order to share thoughts, gain or give advice on coding or software challenges, etc. Essentially, you can talk across platforms and reach others through the mechanism most convenient to them and you. Learning Slack is also an important and marketable skill for many potential future jobs, and if you become familiar with it you can put that on your resume. We will discuss the nature of Slack, how to use it, and our collective rules regarding its use, in class. Our course slack workspace is <https://reed-2024-nss.slack.com/> We will invite you to join so please go through the motions to do so by putting in your preferred email address and choosing a name for yourself. Please choose a name that is related to what we call you in class (i.e. no nicknames, etc.).

Students use Slack to share information with one another and ask questions. We will be doing a lot of work manipulating data this semester and Slack will come in handy as you troubleshoot coding problems and issues you are having getting the software to work properly. We encourage you all to share helpful hints or to answer each other's questions about these types of things, although obviously answering lab problems for each other is not the goal! 😊 We might find ourselves using it a lot, or we may not. Each class will develop its own vibe. It will be what we make of it.

Download the app: Once you join the workspace you may download the software app for your laptop or phone and use the platform more easily from those applications. You may also continue to use it as a URL in a browser. It will prompt you to download the software and walk you through the motions of doing so.

Notifications: Slack can notify you when there are posts in the general community, and also when your specific name is mentioned. It will prompt you to enable these if you wish, and we recommend doing so. Students that have the notifications enabled generally use it more than those that do not.

Forums and Direct Messaging: On Slack there is a #general and a #random channel to direct your comments and questions, and there are also two additional channels that are section-specific. Please post questions about course-relevant topics in the #general and points of interest about related but slightly off topic items in the #random channel. If you are posting about software specific questions, the section-specific thread is probably best. You can post to

the forms directly through the app. If you want to mention a specific user you can do so by typing @ before their user name. You can also “direct message” others in the class and discuss things privately between you or a group of students. You'll see a “direct message” area for this.

Organization and Work Structure: In addition to text messages, Slack can post pictures and files, and code snippets. You can also use Slack to post notes to yourself in the “direct message” area for your name. You can do things like set a reminder (with the /remind command) and other helpful tools. For example, if you see something in Slack that you want to save for later - like an interesting message file or conversation - click the three dots in the upper right hand of the message and select “**Remind me about this**” and choose when you'd like Slackbot to remind you about the message. If you type /remind, you'll get instructions on how to set a reminder. (Such as: “/remind me to drink water at 3 p.m. everyday”). Play around and Google some of these if you're interested!

To Do: After you have joined please post the following message so that we know you are with us and have at least figured out how to join and post! In the #general channel, please write a message with your name and at least three fun facts about you such as:

- your favorite place in the world
- your favorite food
- your favorite color
- your favorite type of music
- your dream job
- what you want to write your thesis about