

**SOCIAL NETWORK ANALYSIS**  
**Sociology 920:570:01**  
**Paul McLean**

**Department of Sociology**  
**Rutgers University**  
**Fall 2017**

Location and time: Davison 128, Mondays, 4:10-6:50pm  
Office hours: M 12:00-1:30; Th 10:00-12:00, Davison 101C, and by appointment  
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Over the last few decades, and over the last fifteen years especially, there has been an enormous increase in the attention paid to social networks as key *determinants* of many elements of social life, including motivations, identities, tastes, social mobility, group organization and mobilization, resource distributions and power relations, decision-making, patterns of innovation, diffusion of disease and attitudes, and the organization of belief systems. Conversely, sociologists have also been increasingly interested in the factors—structural, cultural, motivational, emotional—that drive the *formation* and *evolution* of networks.

While social networks was once a highly specialized area of inquiry, nowadays networks are frequently invoked in mainstream sociological research—even though the specific tools of network analysis remain distinctly different from those most commonly used in such ‘mainstream’ research, whether it be quantitatively or qualitatively oriented. Certainly there are ways to incorporate network elements (as variables, as metaphor, as narrative design) into many research projects. But in its more radical formulations, the study of networks vies to become a kind of fundamental theory of social organization, not just an add-on. In this respect it dovetails with the development over the last decade of a theory of networks as the constitutive material of the physical, biological, technological, and economic worlds.

The fundamental idea of *social* network analysis specifically is that we must study the social order *relationally*: entities (people, organizations, actions, events, texts) are interdependent and mutually constitutive, and structure emerges as patterns in these interdependencies. Social network analysis (SNA) is not the only approach available for studying the social relationally (think of Bourdieu, or Latour, or symbolic interaction, for example), but it is among the most important and versatile, and it offers a rich assortment of tools for exploring the relational quality of social life systematically. Some of you may dabble in networks; I hope all of you will become educated consumers. Hopefully, some of you will become producers of exciting new networks research, and become committed to networks as an orienting sociological perspective.

We will have three main goals pertaining to social network analysis in this course:

- We will consider theoretical justifications for the study of networks and key concepts used in the field, using classical sociological formulations of these concepts and more recent statements.
- We will begin to learn certain methods and computer applications, including working with two programs in particular:
  1. PAJEK, for the graph visualization and quantitative analysis of social networks. Pajek is available for free download (see <http://vlado.fmf.uni-lj.si/pub/networks/pajek/>) (or you may look for <http://vlado.fmf.uni-lj.si/pub/networks/book/> for a version of the program that is more compatible with the de Nooy et al. book mentioned below).
  2. UCINET, for the representation, manipulation, and analysis of network data in matrix format. UCINET is freely available for a trial period, or for \$40 for a student license; plus it is loaded on some machines in the Sociology computer lab. <https://sites.google.com/site/ucinetsoftware/home>

I will assign a few exercises to get you working with data in these two programs. I can provide access to some data, but if you have data of your own, you can try to use that, too. It's also becoming easier to find network datasets online. Increasingly researchers are using R to do network analysis, and the amount of software is growing constantly, more so than I can keep up with.

- We will sample from the large (and growing) volume of empirical work that adopts a networks perspective in one form or another, including work on small groups, friendship networks, political elites, social movements, disease diffusion, immigration, formal organizations, markets, industries, cultural repertoires, and large-scale historical transformation.

Concerning class format: I will spend part of many class sessions lecturing on some of the key ideas and arguments. Nevertheless, I want there to be ample opportunity for questions and discussion, especially as we get into the empirical readings.

## Requirements

To summarize, your grade will be based on the following factors:

- participation and engagement in class (approximately 20%)
- short assignments (approximately 20% in total, graded on a check-minus/check/check-plus scale)
- term paper (approximately 60%)

The term paper is obviously the main requirement for this seminar, and it should take the form of an empirical research paper. It may be based on a brand new idea you develop in this class, or something you are looking to expand upon from a previous class, conceivably for thesis or dissertation purposes. **By empirical, I mean you need to use and analyze network data.** These need not be data you collect yourself (although that would be great); there are plenty of network datasets available online for free with just a little digging around. If you are intent on collecting your own data, you should make sure you have any required IRB approval first. Alternatively, you could collect data from publicly available information (voting records, trade networks, citations, company and boards of directors are a few good examples). **Please discuss your goals and options with me early in the semester.**

### Required Readings

The **required** readings for each class session are printed in **bold** below. Most readings are on **sakai** or can be easily found online. The one book you really must purchase is:

- **Stanley Wasserman and Katherine Faust, *Social Network Analysis: Methods and Applications* (Cambridge, 1994)**

It covers all the basic terminology and many of the core concepts, and it has served generations of networks scholars as a kind of Bible/gazetteer.

In addition, **I will supply you with a free copy of my recent book** that we will read in chunks during the semester:

- **Paul McLean, *Culture in Networks* (Polity, 2017)**

Also on the **sakai** workspace you will find a selection of chapters from the book, *Exploratory Social Network Analysis with Pajek* (Cambridge, 2005), by Wouter de Nooy, Andrej Mrvar, and Vladimir Batagelj. However, you might find it useful to own a copy of this book, which was expanded and re-issued in 2011. This book may help you with the hands-on work of actually doing network analysis within the Pajek program, especially focusing on its graph-related aspects. More recently still, the book *Analyzing Social Networks*, by Stephen P. Borgatti, Martin G. Everett, and Jeffrey C. Johnson (Sage, 2013) takes you through the steps of network analysis from research design and data collection to data manipulation and analysis, largely using UCINET. This might also be a useful book for you to purchase, and/or I will place excerpts from it up on sakai.

I list in the syllabus many readings which are not at all required. The volume of work on networks is overwhelming. It includes myriad articles and books on methods, measures, techniques, etc., and a huge and growing volume of empirical applications. I find it intimidating to ponder the volume and diversity of this research. Don't make the mistake of assuming I have read all this stuff! I simply list some subset of materials that may provide you with some leads into a broader literature concerned with particular topics.

## Schedule of Classes

**Week 1 (9/11)** Introduction: Networks as Fundamental 'Relational' Paradigm

**Read: 1) Georg Simmel, "The Problem of Sociology," in Don Levine (ed.), *Georg Simmel on Individuality and Social Forms*, pp. 23-35**

**2) Barry Wellman, "Structural Analysis: From Method and Metaphor to Theory and Substance," in Barry Wellman and S. D. Berkowitz (eds.), *Social Structures: A Network Approach* (Cambridge, 1988), pp. 19-61**

**3) Stephen P. Borgatti, Ajay Mehra, Daniel J. Brass, and Giuseppe Labianca, "Network Analysis in the Social Sciences," *Science* (13 February 2009): 892-95**

Some other theoretical literature and overviews, NOT to be read for class:

Mustafa Emirbayer, "Manifesto for a Relational Sociology," *American Journal of Sociology* 103: 281-317

Harrison C. White, *Identity and Control* (Princeton, 1992; 2<sup>nd</sup> [much improved] edition, 2008)

Ronald S. Burt, *Toward a Structural Theory of Action* (Academic Press, 1982), especially chs. 1 and 9

Peter Blau, *Exchange and Power in Social Life* (Transaction, 1983 [1964])

Bonnie Erickson, "The Relational Basis of Attitudes," in Barry Wellman and S. D. Berkowitz (eds.), *Social Structures: A Network Approach* pp. 99-121 (Cambridge, 1988)

A.R. Radcliffe-Brown, "On Social Structure," *Journal of the Royal Anthropological Institute of Great Britain and Ireland* 70:188-204

Georg Simmel, "The Triad," in Kurt Wolff (ed.), *The Sociology of Georg Simmel* (Free Press, 1950), pp. 145-169

Ronald L. Breiger, "The Analysis of Social Networks," in Melissa Hardy and Alan Bryman (eds.), *Handbook of Data Analysis* (Sage, 2003), pp. 505-26

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 pp. 11-25

John Levi Martin, *Social Structures* (Princeton, 2009)

Albert-Laszlo Barabasi, *Linked: How Everything Is Connected to Everything Else and What It Means for Business, Science, and Everyday Life* (Plume, Penguin Books, 2002)

Carter T. Butts, "Revisiting the Foundations of Network Analysis," *Science* (24 July 2009): 414-16

**Week 2 (9/18)** Types of Networks and Ways of Representing Them

**Read: 1) Wasserman and Faust, chapters 1-4**

**(Note: This LONG reading provides the basic vocabulary of network analysis. Certain concepts not discussed here have become objects of attention in recent years; we'll cover those another time. Skip the sections marked with circles and railroad crossing signs)**

**2) McLean, *Culture in Networks*, chapter 2**

A brief assortment of other useful texts covering basic (and some not so basic) network analytic concepts:

- Christina Prell, *Social Network Analysis: History, Theory, and Method* (Sage, 2012)  
 Garry L. Robins, *Doing Social Network Research: Network-based Research Design for Social Scientists* (Sage, 2015)  
 Charles Kadushin, *Understanding Social Networks: Theories, Concepts, and Findings* (Oxford, 2012)  
 Nicholas A. Christakis and James H. Fowler, *Connected: How Your Friends' Friends' Friends Affect Everything you Feel, Think, and Do* (Little, Brown and Company, 2009)  
 John Scott, *Social Network Analysis: A Handbook* (Sage, 3<sup>rd</sup> edition, 2013)  
 Peter Monge and Noshir Contractor, *Theories of Communication in Networks* (Oxford, 2003)  
 David Knoke and Song Yang, *Social Network Analysis* (Sage, 2007)  
 Matthew O. Jackson, *Social and Economic Networks* (Princeton, 2008)  
 Albert-László Barabási, *Linked: The New Science of Networks* (Perseus, 2002)  
 Mark Newman, *Networks: An Introduction* (Oxford University Press, 2010)  
 Duncan J. Watts, *Six Degrees: The Science of a Connected Age* (Norton, 2003)

Some classic one-mode network studies, describing single and/or multiple types of ties:

- David Krackhardt, "Informal Networks: The Company Behind the Chart," *Harvard Business Review* (July 1993):105-111  
 David Krackhardt, "The Strength of Strong Ties: The Importance of Philos in Organizations," in Nitin Nohria and Robert G. Eccles (eds.), *Networks and Organizations: Structure, Form, and Action*  
 S.F. Sampson, *A Novitiate in a Period of Change. An Experimental and Case Study of Social Relationships* (PhD thesis Cornell University, 1968) (data used all over the place)  
 F. J. Roethlisberger and William J. Dickson, "The Internal Organization of the Group in the Bank Wiring Observation Room," in their *Management and the Worker* (Harvard, 1939), pp. 493-510  
 J. L. Moreno and H. H. Jennings. 1938. "Statistics of Social Configurations." *Sociometry* 1 (3/4): 342-374  
 Elizabeth Bott, "Urban Families: Conjugal Roles and Social Networks," *Human Relations* 8:345-84  
 Elizabeth Bott, *Family and Social Network* (Tavistock, 1957)  
 J. A. Barnes, "Classes and Committees in a Norwegian Island Parish," in Samuel Leinhardt (ed.), *Social Networks: A Developing Paradigm*, pp. 233-52 (Academic, 1977)  
 James R. Lincoln and Jon Miller, "Work and Friendship Ties in Organizations," *Administrative Science Quarterly* 24:181-99

Some concerns about network data collection and measurement:

- Peter V. Marsden, "Network Data and Measurement," *Annual Review of Sociology* 16:435-63  
 Peter D. Killworth and H. Russell Bernard, "Informant Accuracy in Social Network Data," *Human Organization* 35:269-86  
 W. H. Bernard, P. Killworth, and L. Sailer, "Informant Accuracy in Social Networks, Part IV: Comparison of Clique-level Structure in Behavioral and Cognitive Network Data," *Social Networks* 2: 191-218  
 Jeff Smith and James Moody, "Structural Effects of Network Sampling Coverage I: Nodes Missing at Random," *Social Networks* 35: 652-68  
 J. A. Smith, James Moody, and J. Morgan, "Network sampling coverage II: The effect of non-random missing data on network measurement," *Social networks* 48: 78-99  
 Linton C. Freeman, A. K. Romney, and S. C. Freeman, "Cognitive Structure and Informant Accuracy," *American Anthropologist* 89:310-25  
 Ove Frank, "Network Sampling and Model Fitting," in Peter Carrington et al. (eds.), *Models and Methods in Social Network Analysis* (Cambridge, 2005), chapter 3  
 Ronald L. Breiger, "Introduction to Special issue: Ethical Dilemmas in Social Network Research," *Social Networks* 27, 2: 89-93  
 Charles Kadushin, "Who Benefits from Network Analysis: Ethics of Social Network Research," *Social Networks* 27, 2: 139-53  
 Matthew E. Brashears and Eric Gladstone, "Error Correction Mechanisms in Social Networks Can Reduce Accuracy and Encourage Innovation," *Social Networks* 44:22-35

**Week 3 (9/25)**      Local Mechanisms of Network Formation

**Read: 1) Charles Kadushin, *Understanding Social Networks*, chapters 2 and 5**

**2) Mark T. Rivera, Sara B. Soderstrom, and Brian Uzzi, “Dynamics of Dyads in Social Networks: Assortative, Relational, and Proximity Mechanisms,” *Annual Review of Sociology* 36 (2010): 91–115**

**3) J. Miller McPherson, Lynn Smith-Lovin, and James Cook, “Birds of a Feather: Homophily in Social Networks,” *Annual Review of Sociology* 27:415-44**

**4) Kevin Lewis, “Preferences in the Early Stages of Mate Choice,” *Social Forces* 95 (2016): 283-320**

Some other materials on fundamental aspects of tie formation and/or sites of tie-formation:

Wasserman and Faust, chapters 13 and 14

Gueorgi Kossinets and Duncan J. Watts, “Origins of Homophily in an Evolving Social Network,” *American Journal of Sociology* 115, 2 (September 2009): 405-450

James Coleman, *The Adolescent Society* (Free Press, 1961[71]), especially chapter 7

John W. Kidd, “An Analysis of Social Rejection in a College Men’s Residence Hall.” In J. L. Moreno (ed.), *The Sociometry Reader* (Free Press, 1960), pp. 428-36.

Paul Holland and Samuel Leinhardt, “An Exponential Family of Probability Distributions for Directed Graphs,” *Journal of the American Statistical Association* 76:33-50

Jere Cohen, “Sources of Peer Group Homogeneity,” *Sociology of Education* 50:227-41

Denise Kandel, “Homophily, Selection, and Socialization in Adolescent Friendships,” *American Journal of Sociology* 84:427-36

Leon Festinger, Stanley Schachter and Kurt Back, *Social Pressures in Informal Groups: A Study of Human Factors in Housing* (Stanford, 1950)

Theodore M. Newcomb, *The Acquaintance Process* (Holt Rinehart Winston, 1961)

C. Kadushin, “Friendship Among the French Financial Elite,” *American Sociological Review* 60:202-21

Georg Simmel, “The Triad,” in Kurt Wolff (ed.), *The Sociology of Georg Simmel* (Free Press, 1950), pp. 145-169

Randall Collins, “On the Microfoundations of Macrosociology,” *American Journal of Sociology* 86: 984–1014

Randall Collins, *Interaction Ritual Chains*. (Princeton, 2004)

Eric Leifer, “Interaction Preludes to Role Setting: Exploratory Local Action,” *American Sociological Review* 53(6): 865-878

Howard Becker and R. Useem, “Sociological Analysis of the Dyad,” *American Sociological Review* 7 (1942): 13-26

Kara Joyner and Grace Kao, “Interracial Relationships and the Transition to Adulthood,” *American Sociological Review* 70, 4: 563-81

Paul D. McLean, *The Art of the Network: Strategic Interaction and Patronage in Renaissance Florence* (Duke, 2007)

Andreas Wimmer and Kevin Lewis, “Beyond and Below Racial Homophily: ERG Models of a Friendship Network Documented on Facebook,” *American Journal of Sociology* 116, 2: 583-642

McFarland, Daniel A., Dan Jurafsky, and Craig Rawlings, “Making the Connection: Social Bonding in Courtship Situations,” *American Journal of Sociology* 118: 1596-1649

McFarland, Daniel A., James Moody, David Diehl, Jeffrey A. Smith, and Reuben J. Thomas, “Network Ecology and Adolescent Social Structure,” *American Sociological Review* 79: 1088-1121

**Week 4 (10/2)** Power in Networks: Centrality, Hierarchy, and (to a lesser extent) Balance

**Read: 1) Wasserman and Faust, chapters 5 and 6**

**2) Gabriel Rossman, Nicole Esparza and Phillip Bonacich, "I'd Like to Thank the Academy, Team Spillovers, and Network Centrality," *American Sociological Review*, 75(1) 31–51**

**3) Ying Shi and James Moody, "Most Likely to Succeed: Long-Run Returns to Adolescent Popularity," *Social Currents* 4: 13-33**

**4) Val Burris, "The Academic Caste System: Prestige Hierarchies in PhD Exchange Networks," *American Sociological Review* 69, 239–264**

Some other empirical examples of how centrality matters, and articles on the various measures:

Wayne Baker and Robert Faulkner, "The Social Organization of Conspiracy: Illegal Networks in the Heavy Electrical Equipment Industry," *American Sociological Review* 58: 837-60

Roger Gould, "Power and Social Structure in Community Elites," *Social Forces* 68:531-52

Robert Faris and Diane Felmlee, "Status Struggles: Network Centrality and Gender Segregation in Same- and Cross-Gender Aggression," *American Sociological Review* 76, 1 (Feb 2011): 48-73

Noah Friedkin, "Theoretical Foundations for Centrality Measures," *American Journal of Sociology* 96:1478-1504

Steve Borgatti and Martin Everett, "Models of Core-Periphery Structure," *Social Networks* 21:375-395

D. C. Bell, J. S. Atkinson, and J. W. Carlson, "Centrality Measures for Disease Transmission Networks," *Social Networks* 21:1-21

J. M. Bolland, "Sorting Out Centrality: An Analysis of the Performance of Four Centrality Models in Real and Simulated Networks," *Social Networks* 10:233-53

Linton Freeman, "A Set of Measures of Centrality Based on Betweenness," *Sociometry* 40:35-41

K. Stephenson and M. Zelen, "Rethinking Centrality: Methods and Examples," *Social Networks* 11:1-37

Steven P. Borgatti, "Centrality and Network Flow," *Social Networks* 27: 55-71

Benjamin Cornwell, Edward O. Laumann, "Network Position and Sexual Dysfunction: Implications of Partner Betweenness for Men," *American Journal of Sociology* 117, 1: 172-208

John H. Evans, "Stratification in Knowledge Production: Author Prestige and the Influence of an American Academic Debate." *Poetics* 33 (2): 111–133

Network Position as 'Social Capital':

James Coleman, "Social Capital in the Creation of Human Capital," *American Journal of Sociology* 94:S95-S120.

James Coleman, *Foundations of Social Theory* (Harvard, 1990), pp. 300-21

Mark Granovetter, "Economic Action and Social Structure: The Problem of Embeddedness," *American Journal of Sociology* 91:481-510.

James Moody and Pamela Paxton, "Building Bridges: Linking Social Capital and Social Networks to Improve Theory and Research," *American Behavioral Scientist* 52: 1491-1506

Paul DiMaggio and Filiz Garip, "How Network Externalities Can Exacerbate Intergroup Inequality," *American Journal of Sociology* 116, 6 (May 2011): 1887-1933

Ronald S. Burt, *Brokerage and Closure: An Introduction to Social Capital* (Oxford, 2005)

Classic (and recent) sociological work on exchange, power and Resource Dependency theory:

- Richard Emerson, "Power-Dependence Relations," *American Sociological Review* 27:31-41.
- Karen S. Cook and Richard M. Emerson, "Power, Equity and Commitment in Exchange Networks," *American Sociological Review* 43:721-39
- Karen S. Cook, Richard Emerson, M. R. Gillmore, and T. Yamagishi, "The Distribution of Power in Exchange Networks: Theory and Experimental Results," *American Journal of Sociology* 89:275-305
- K. Cook and J. Whitmeyer, "Two Approaches to Social Structure," *Annual Review of Sociology* 18:109-27
- T. Yamagishi, M. R. Gillmore, and Karen Cook, "Network Connections and the Distribution of Power in Exchange Networks," *American Journal of Sociology* 93:833-51
- Jeffrey Pfeffer and Gerald Salancik, *The External Control of Organizations* (Harper & Row, 1978)
- Linda Molm, "The Dynamics of Power in Social Exchange," *American Sociological Review* 55:427-47
- Barry Markovsky, David Willer and T. Patton, "Power Relations in Exchange Networks," *American Sociological Review* 53:220-36
- Edward J. Lawler, Shane R. Thye, and Jeongkoo Yoon, "Social Exchange and Micro Social Order," *American Sociological Review* 73, 4 (August 2008): 519-42
- Robb Willer, "Groups Reward Individual Sacrifice: The Status Solution to the Collective Action Problem," *American Sociological Review* 74, 1 (February 2009): 23-43
- Marcel Van Assen and Arnout van de Rijt, "Dynamic Exchange Networks," *Social Networks* 29, 2: 266-78
- Arnout Van de Rijt and Marcel van Assen, "Theories of Network Exchange: Anomalies, Desirable Properties, and Critical Networks," *Social Networks* 30, 3: 259-271

Other materials on the idea of balance:

- Howard Taylor, *Balance in Small Groups* (Von Nostrand Reinhold, 1970), chapter 2
- Fritz Heider, "Attitudes and Cognitive Orientation," *Psychological Review* 52:358-74 (also reprinted in Samuel Leinhardt (ed.), *Social Networks: A Developing Paradigm* [Academic Press, 1977])
- Dorwin Cartwright and Frank Harary, "Structural Balance," *Psychological Review* 63:277-93 (also reprinted in Samuel Leinhardt (ed.), *Social Networks: A Developing Paradigm*)
- James A. Davis, "Clustering and Structural Balance in Groups," in Samuel Leinhardt (ed.), *Social Networks: A Developing Paradigm* (Academic Press, 1977), pp. 27-34
- Patrick Doreian et al., "A Brief History of Balance Through Time," *Journal of Mathematical Sociology* 21: 113-31
- Patrick Doreian and David Krackhardt, "Pre-transitive Balance Mechanisms for Signed Networks," *Journal of Mathematical Sociology* 25:43-67
- Wouter de Nooy, "A Literary Playground: Literary Criticism and Balance Theory," *Poetics* 26: 385-404.

Other work on hierarchies and hierarchy formation:

- Ivan Chase, "Social Process and Hierarchy Formation in Small Groups: A Comparative Perspective," *American Sociological Review* 45:905-24
- Ivan Chase, "Models of Hierarchy Formation in Animal Societies," *Behavioral Sciences* 19:374-82
- Frans de Waal, *Chimpanzee Politics: Power and Sex Among Apes* (Harper & Row, 1982)
- John Levi Martin, *Social Structures*, chapter 4 (Princeton, 2009)
- Andrew V. Papachristos, "Murder by Structure: Dominance Relations and the Social Structure of Gang Homicide," *American Journal of Sociology* 115: 74-128
- Cecilia Ridgeway and David Diekema, "Dominance and Collective Hierarchy Formation in Male and Female Task Groups," *American Sociological Review* 54:79-93
- Eugene Rosa and Allan Mazur, "Incipient Status in Groups," *Social Forces* 58:18-37
- Allan Mazur et al, "Physiological Aspects of Communication Via Mutual Gaze," *American Journal of Sociology* 86:50-74
- Steve Ellyson and John Dovidio (eds.), *Power, Dominance, and Nonverbal Behavior* (Springer, 1985)
- Donald Omark, F. F. Strayer, and Daniel Freedman, *Dominance Relations: An Ethological View of Human Conflict in Social Interaction*, esp. chapters 7-12, 21-3, 26 (Garland, 1980)
- Roger Gould, "The Origins of Status Hierarchies: A Formal Theory and Empirical Test," *American Journal of Sociology* 107:1143-78



Classic material specifically on the idea of transitivity:

Maureen T. Hallinan and W. N. Kubitschek, "The Effects of Individual and Structural Characteristics on Intransitivity in Social Networks," *Social Psychology Quarterly* 51:81-92

Paul Holland and Samuel Leinhardt, "A Method for Detecting Structure in Sociometric Data," *American Journal of Sociology* 76:492-513

Paul Holland and Samuel Leinhardt, "Transitivity in Structural Models of Small Groups," *Comparative Group Studies* 2:107-24

Eugene Johnsen, "Network Macrostructure Models for the Davis-Leinhardt Set of Empirical Sociomatrices," *Social Networks* 7:203-24

Shin-Kap Han, "Tribal Regimes in Academia: A Comparative Analysis of Market Structure Across Disciplines," *Social Networks* 25:251-280

Harrison C. White, "Management Conflict and Sociometric Structure," *American Journal of Sociology* 67:185-7.

Steffen W. Schmidt, James C. Scott, Carl Landé, and Laura Guasti (eds.), *Friends, Followers, and Factions: A Reader in Political Clientelism* (California, 1977)

John Levi Martin, *Social Structures* (Princeton, 2009), *passim* but especially chapter 7

**Week 5 (10/9)          Subgroups and Cohesion**

**Read: 1) Wasserman and Faust, chapter 7**

**2) James Moody and Douglas R. White, "Structural Cohesion and Embeddedness: A Hierarchical Conception of Social Groups,"**  
*American Sociological Review* 68:103-127

**3) James Moody, "The Structure of a Social Science Collaboration Network: Disciplinary Cohesion from 1963 to 1999,"**  
*American Sociological Review* 69: 213–238

On the notion of cliques, near-cliques, and isolates, a good deal of it empirical:

Kenneth Frank and Jeff Yasumoto, "Social Capital Within and Between Groups," *American Journal of Sociology* 104:642-86

Noah Friedkin, "The Structure of Social Space," pp. 125-62 in his *A Structural Theory of Social Influence*  
John Cottrell, *Social Networks and Social Influences in Adolescence* (Routledge, 1996)

Karl P. Reitz, "Social Groups in a Monastery," *Social Networks* 10: 343-57

Wayne Baker, "The Social Structure of a National Securities Market," *American Journal of Sociology* 89:775-811

James Lincoln, Michael Gerlach, and Christiana Ahmadjian, "Keiretsu Networks and Corporate Performance in Japan," *American Sociological Review* 61:67-88

Derek A. Kreager, "Strangers in the Halls: Isolation and Delinquency in School Networks," *Social Forces* 83: 351-90

Kenneth A. Frank et al., "The Social Dynamics of Mathematics Coursetaking in High School," *American Journal of Sociology* 113, 6: 1645-96

Douglas R. White and Frank Harary, "The Cohesiveness of Blocks in Social Networks: Node Connectivity and Conditional Density," *Sociological Methodology* 31:305-59

Kenneth A. Frank, "Identifying Cohesive Subgroups," *Social Networks* 17:27-56

James Moody, "Peer Influence Groups: Identifying Dense Clusters in Large Networks," *Social Networks* 23: 261-283

Srivastava, Sameer B., and Mahzarin R. Banaji. 2011. "Culture, Cognition, and Collaborative Networks in Organizations," *American Sociological Review* 76: 207-33

**Week 6 (10/16)** Large-Scale Network Topologies: Small-Worlds, Reachability, Brokerage

**Read: 1) Mark S. Granovetter, “The Strength of Weak Ties,”** *American Journal of Sociology* 78: 1360–1380

**2) Duncan Watts, “Networks, Dynamics, and the Small-World Phenomenon,”** *American Journal of Sociology* 105: 493-527

**3) Peter S. Bearman, James Moody, and Katherine Stovel, “Chains of Affection: The Structure of Adolescent Romantic and Sexual Networks,”** *American Journal of Sociology* 110: 44–91

**4) Ronald S. Burt, “Structural Holes and Good Ideas,”** *American Journal of Sociology* 110: 349-99

Other materials on reach, the strength of weak ties, and understanding macrostructure:

Mark Granovetter, *Getting a Job: A Study of Contacts and Careers* (Chicago, 1974; 2nd edition 1995)

Freeman, L. C. 1992. “The Sociological Concept of ‘Group’: An Empirical Test of Two Models,” *American Journal of Sociology* 98: 152-66

Walter W. Powell, Douglas R. White, Kenneth W. Koput, and Jason Owen-Smith, “Network Dynamics and Field Evolution: The Growth of Inter-organizational Collaboration in the Life Sciences,” *American Journal of Sociology* 110: 1132–1205

Brian Uzzi and Jarrett Spiro, “Collaboration and Creativity: The Small World Problem,” *American Journal of Sociology* 111:2, 447-504

M. T. Hansen, “The Search-Transfer Problem: The Role of Weak Ties in Sharing Knowledge Across Organization Subunits,” *Administrative Science Quarterly* 44:82-111

A. Hargadon and R. Sutton, “Technology Brokering and Innovation in a Product Development Firm,” *Administrative Science Quarterly* 42:716-49.

Gabriel Weimann, “On the Importance of Marginality,” *American Sociological Review* 47:764-73

Peter Marsden and K. E. Campbell, “Measuring Tie Strength,” *Social Forces* 63:482-501

Peggy Giordano, “Wider Circle of Friends in Adolescence,” *American Journal of Sociology* 101:661-97

Rick Grannis, “Six Degrees of ‘Who Cares?’” *American Journal of Sociology* 115: 991-1017

Paul McLean, *The Art of the Network: Strategic Interaction and Patronage in Renaissance Florence*, ch. 6

**Week 7 (10/23)** Classic Structuralist Approaches: Positions, Blocks, Roles

**Read: 1) Wasserman and Faust, chapters 9, 10, 12 (skip 11)**

**2) S. F. Nadel, *The Theory of Social Structure*, pp. 1-9, 62-73, 79-92, 97-104, 147-52**

**3) John F. Padgett and Christopher K. Ansell, “Robust Action and the Rise of the Medici, 1400-1434,”** *American Journal of Sociology* 98: 1259-1319

**4) Peter Bearman, “Generalized Exchange,”** *American Journal of Sociology* 102: 1383-1415

Some other material on structural equivalence and blockmodels:

- P. McLean, *Culture in Networks*, pp. 89-95
- Stephen Borgatti and Martin Everett, "Notions of Position in Social Network Analysis," *Sociological Methodology* 22:1-35
- Harrison C. White, Scott Boorman, and Ronald Breiger, "Social Structure from Multiple Networks. I: Blockmodels of Roles and Positions," *American Journal of Sociology* 81:730-80
- Scott Boorman and Harrison C. White, "Social Structure from Multiple Networks. II: Role Structures," *American Journal of Sociology* 81:1384-1446
- Ronald L. Breiger and Philippa Pattison, "Cumulated Social Roles: The Duality of Persons and Their Algebras," *Social Networks* 8:215-56
- Ronald L. Breiger, "Career Attributes and Network Structure: A Blockmodel Study of Biomedical Research Specialty," *American Sociological Review* 41:117-135
- Philippa Pattison, *Algebraic Models for Social Networks* (Cambridge, 1994)
- François Lorrain and Harrison C. White, "Structural Equivalence of Individuals in Social Networks," *Journal of Mathematical Sociology* 1:49-80
- Katherine Faust, "Comparison of Methods for Positional Analysis: Structural and General Equivalences," *Social Networks* 10:313-41
- Ronald S. Burt, "Models of Network Structure," *Annual Review of Sociology* 6:79-141
- Ronald S. Burt, "Social Contagion and Innovation: Cohesion versus Structural Equivalence," *American Journal of Sociology* 92:1287-335

Vacancy Chains as a dynamic conception of interdependence:

- John F. Padgett, "Mobility as Control: Congressmen through Committees," in Ronald L. Breiger (ed.), *Social Mobility and Social Structure* (Cambridge, 1990), pp. 27-58
- Harrison C. White, *Chains of Opportunity* (Harvard, 1970), especially chapter 1
- Ivan D. Chase, "Vacancy Chains," *Annual Review of Sociology* 17:133-54
- Andrew Abbott, "Vacancy Models for Historical Data," in Ronald L. Breiger (ed.), *Social Mobility and Social Structure*, pp. 80-102 (Cambridge, 1990)
- Andrew Abbott and Alexandra Hrycak, "Measuring Resemblance in Sequence Data: An Optimal Matching Analysis of Musicians' Careers," *American Journal of Sociology* 96:144-85
- D. Randall Smith and Andrew Abbott, "A Labor Market Perspective on the Mobility of College Football Coaches," *Social Forces* 61:1147-67
- Katherine Stovel, Michael Savage, and Peter Bearman, "Ascription into Achievement: Models of Career Systems at Lloyds Bank, 1890-1970," *American Journal of Sociology* 102:358-99
- Katherine Stovel and Mike Savage, "Mergers and Mobility: Organizational Growth and the Origins of Career Migration at Lloyds Bank," *American Journal of Sociology* 111:1080-1121
- King-to Yeung, "Repressing Rebels, Managing Bureaucrats: State Organizational Adaptation During the Taiping Rebellion, 1851-64," unpublished ms., Rutgers University

Anthropological and historical materials on kinship:

- Claude Lévi-Strauss, *The Elementary Structures of Kinship*
- Harrison C. White, *An Anatomy of Kinship* (Prentice-Hall, 1963)
- Robin Fox, *Kinship and Marriage*, chapters 1, 3, 4, 6-8
- Paula Rubel and A. Rosman, *Your Own Pigs You May Not Eat* (Chicago, 1978)
- Andrew Strathern, *The Rope of Moka: Big Men and Ceremonial Exchange in New Guinea*
- Douglas R. White and Paul Jorion, "Representing and Computing Kinship: A New Approach," *Current Anthropology* 33:454-63
- David Herlihy, "Family Solidarity in Medieval Italian History," in David Herlihy et al. (eds.), *Economy, Society and Government in Medieval Italy* (Kent State, 1969)
- John F. Padgett, "Open Elite? Social Mobility, Marriage and Family in Renaissance Florence, 1282-1494," *Renaissance Quarterly* 63, 2: 357-411
- Yusheng Peng, "When Formal Laws and Informal Norms Collide: Lineage Networks versus Birth Control Policy in China," *American Journal of Sociology* 116, 3 (November 2010): 770-805

**Week 8 (10/30)** Exponential Random Graph Models

- Read: 1) J. L. Moreno and H. H. Jennings. 1938. "Statistics of Social Configurations," *Sociometry* 1 (3/4): 342-374**
- 2) Gary Robins, Pip Pattison, Yuval Kalish, and Dean Lusher, "An Introduction to Exponential Random Graph ( $p^*$ ) Models for Social Networks," *Social Networks* 29:173-191**
- 3) Neha Gondal and Paul D. McLean, "What Makes a Network Go Round: Exploring the Structure of a Strong Component using Exponential Random Graph Models," *Social Networks* 35: 499-513**
- 4) Steven M. Goodreau, James A. Kitts, and Martina Morris, "Birds of a Feather, Or Friend of a Friend? Using Exponential Random Graph Models to Investigate Adolescent Social Networks," *Demography* 46: 103-125**
- 5) N. Harrigan, "PNet for Dummies,"**  
<http://www.mysmu.edu/faculty/nharrigan/PNetForDummies.pdf>

Some technical aspects of ERGMs:

- G. Robins, G., P. Pattison, and P. Wang. 2009. "Closure, Connectivity and Degrees: New Specifications for Exponential Random Graph ( $p^*$ ) Models for Directed Social Networks," *Social Networks* 31, 2: 105-117
- Garry Robins, J. Woolcock, and Philippa Pattison, "Small and Other Worlds: Global Network Structures from Local Processes," *American Journal of Sociology* 110: 894-936
- Peng Wang, Sharpe, K., Robins, G., Pattison, P., 2009. "Exponential random graph models for affiliation networks." *Social Networks* 31 (1), 12–25.
- Garry Robins, Tom Snijders, Peng Wang, Mark Handcock, and Philippa Pattison, "Recent Developments in Exponential Random Graph ( $p^*$ ) Models for Social Networks," *Social Networks* 29, 2: 192-215
- S. Wasserman and G. Robins, "An Introduction to Random Graphs, Dependence Graphs, and  $p^*$ ," in Peter Carrington et al. (eds.), *Models and Methods in Social Network Analysis* (Cambridge, 2005), pp. 148-61
- Tom A. B. Snijders, "Models for Longitudinal Network Data," in Peter Carrington et al. (eds.), *Models and Methods in Social Network Analysis* (Cambridge, 2005), pp. 215-47
- Tom A. B. Snijders, "The Statistical Evaluation of Social Network Dynamics," *Sociological Methodology* 31:361-95
- D. Lusher, J. Koskinen, and G. Robins, *Exponential Random Graph Models for Social Networks: Theory, Methods, and Applications* (Cambridge, 2013)
- J. Besag, "Spatial Interaction and the Statistical Analysis of Lattice Systems." *Journal of the Royal Statistical Society, Series B (Methodological)* 36 (2): 192-236
- P. Erdős and A. Rényi, "On Random Graphs," *Publicationes Mathematicae* 6: 290-297
- O. Frank & D. Strauss, "Markov Graphs," *Journal of the American Statistical Association* 81(395): 832-42
- S. M. Goodreau, "Advances in Exponential Random Graph ( $p^*$ ) Models Applied to a Large Social Network," *Social Networks* 29: 231-48
- M. S. Handcock, "Assessing Degeneracy in Statistical Models of Social Networks," Center for Statistics and the Social Sciences, University of Washington, Seattle, WA, Working Paper 39
- P. W. Holland and S. Leinhardt, "An Exponential Family of Probability Distributions for Directed Graphs," *Journal of the American Statistical Association* 76 (373): 33-50
- D. R. Hunter, "Curved Exponential Family Models for Social Networks," *Social Networks* 29: 216-230

- D. R Hunter and M. S. Handcock, "Inference in Curved Exponential Family Models for Networks," *Journal of Computational and Graphical Statistics* 15: 565-583
- P. Pattison and G. Robins, "Neighborhood-Based Models for Social Networks," *Sociological Methodology* 32: 301-37
- P. Pattison and S. Wasserman, "Logit Models and Logistic Regressions for Social Networks II: Multivariate Relations." *The British Journal of Mathematical and Statistical Psychology* 52: 169-93
- G. Robins, P. Elliott, and P. Pattison, "Network Models for Social Selection Processes," *Social Networks* 23: 1-30
- G. Robins and P. Pattison, "Interdependencies and Social Processes: Dependence Graphs and Generalized Dependence Structures," In *Models and Methods in Social Network Analysis*, edited by P. Carrington, J. Scott, and S. Wasserman (Cambridge, 2013)
- G. Robins, P. Pattison, and P. Elliott, "Network Models for Social Influence Processes," *Psychometrika* 66: 161-89
- T. A. B. Snijders, "Markov Chain Monte Carlo Estimation of Exponential Random Graph Models," *Journal of Social Structure* 3: 1-40
- T. A. B. Snijders, P. Pattison, G. Robins, and M. Handcock, "New Specifications for Exponential Random Graph Models," *Sociological Methodology* 36: 99-153

A few noteworthy ERGM applications:

- E. Lazega and M. van Duijn, "Position in Formal Structure, Personal Characteristics and Choices of Advisors in a Law Firm: A Logistic Regression Model for Dyadic Network Data," *Social Networks* 19: 375-97
- Anna-Marie Niekamp, Liesbeth A.G. Mercken, Christian J.P.A. Hoebe, Nicole H.T.M. Dukers-Muijers, "A Sexual Affiliation Network of Swingers, Heterosexuals Practicing Risk Behaviours that Potentiate the Spread of Sexually Transmitted Infections: A Two-mode Approach," *Social Networks*, 35:223-36
- Sameer Srivastava and M. Banaji, "Culture, Cognition, and Collaborative Networks in Organizations," *American Sociological Review* 76: 207-33
- Andreas Wimmer and Kevin Lewis, "Beyond and Below Racial Homophily: ERG Models of a Friendship Network Documented on Facebook," *American Journal of Sociology* 116: 583-642
- Andrew V. Papachristos, David Hureau, and Anthony Braga, "The Corner and the Crew: The Influence of Geography and Social Networks on Gang Violence," *American Sociological Review* 78: 417-47

**Week 9 (11/6)**            Duality: Varieties of Two-Mode (and N-Mode) Networks

- Read: 1) Ronald L. Breiger, "The Duality of Persons and Groups," *Social Forces* 53: 181–190**
- 2) John W. Mohr, "Soldiers, Mothers, Tramps, and Others: Discourse Roles in the 1907 New York City Charity Directory," *Poetics* 22: 327-57**
- 3) McLean, *Culture in Networks*, chapter 7**
- 4) Val Burris, "Interlocking Directorates and Political Cohesion Among Corporate Elites," *American Journal of Sociology* 111: 249-83**
- 5) John W. Mohr and Petko Bogdanov, "Introduction—Topic models: What They Are and Why They Matter, *Poetics* 4 (2013): 545–69**

Some other technical work on affiliation networks:

Wasserman and Faust, chapter 8

J. Miller McPherson, "Hypernetwork Sampling: Duality and Differentiation Among Voluntary Organizations," *Social Networks* 3:225-49

Stephen P. Borgatti and Martin Everett, "Network Analysis of 2-Mode Data," *Social Networks* 19:243-69

Steve Borgatti and Daniel Halgin, "Analyzing Affiliation Networks," In *The Sage Handbook of Social Network Analysis*, edited by John Scott and Peter J. Carrington, pp. 417-433 (Sage, 2011)

Bernice Pescosolido and Beth Rubin, "The Web of Group Affiliations Revisited: Social Life, Postmodernism, and Sociology," *American Sociological Review* 65:52-76

James G. Ennis, "The Social Organization of Sociological Knowledge: Modeling the Intersection of Specialties," *American Sociological Review* 57:259-65

Katherine Faust, "Centrality in Affiliation Networks," *Social Networks* 19:157-91

George Barnett, "Correspondence Analysis: A Method for the Description of Communication Networks," in W. D. Richards and G. Barnett (eds.), *Progress in Communication Science* (Ablex, 1993), pp. 136-63.

John M. Roberts, "Correspondence Analysis of Two-Mode Network Data," *Social Networks* 22:65-72

Georg Simmel, "The Web of Group Affiliations" (in his *Conflict and the WoGA*, Free Press, 1955)

Peter Blau and Joseph Schwartz, *Crosscutting Social Circles* (Transaction, 1997)

Thomas J. Fararo and Patrick Doreian, "Tripartite Structural Analysis: Generalizing the Breiger-Wilson Formalism," *Social Networks* 6, 2 (June 1984): 141-75

P. Wang, K. Sharpe, G. Robins, and P. Pattison, "Exponential Random Graph Models for Affiliation Networks," *Social Networks* 31: 12-25

A few empirical applications of affiliation network ideas:

Ann Mische and Philippa Pattison, "Composing a Civic Arena: Publics, Projects, and Social Settings," *Poetics* 27: 163-94

E. Lazega, M. Jourda, L. Mounier, and R. Stofer, "Catching Up with Big Fish in the Big Pond? Multi-level Network Analysis Through Linked Design," *Social Networks* 30: 159-76

F. Agneessens, H. Roose, H. Waeye, "Choices of Theatre Events: p\* Models for Affiliation Networks with Attributes," *Metodoloski Zvezki* 1: 419-39

M. Latapy, C. Magnien, and N. Vecchio, "Basic Notions for the Analysis of Large Two-mode Networks," *Social Networks* 30: 31-48

Neha Gondal, "The Local and Global Structure of Knowledge Production in an Emergent Research Field: An Exponential Random Graph Analysis," *Social Networks* 33: 20-30

King-to Yeung, "What Does Love Mean? Exploring Network Culture in Two Network Settings," *Social Forces* 84: 391-420

**Week 10 (11/13)** Personal Networks (Ego-Networks) and Social Support

**Read: 1) J. Miller McPherson, Lynn Smith-Lovin, and Matthew Brashears, "Social Isolation in America: Changes in Core Discussion Networks over Two Decades," *American Sociological Review* 71: 353-75**

**2) Neha Gondal, "Who 'Fills In' for Siblings and How? A Multi-Level Analysis of Personal Network Composition and its Relationship to Sibling Size," *Sociological Forum* 27: 732-55**

**3) Peter S. Bearman and Paolo Parigi, "Cloning Headless Frogs and Other Important Matters: Conversation Topics and Network Structure," *Social Forces* 83: 535-57**

Some other materials related to ego-networks, core discussion groups, and/or social support:

- Anthony Paik and Kenneth Sanchagrin, "Social Isolation in America: An Artifact," *American Sociological Review* 78: 339-60
- Peter Marsden, "Core Discussion Networks for Americans," *American Sociological Review* 52:122-131
- Claude S. Fischer, *Still Connected: Family and Friends in America Since 1970* (Russell Sage, 2011)
- Claude S. Fischer, *To Dwell Among Friends* (Chicago, 1982)
- Barry Wellman and S. Wortley, "Different Strokes from Different Folks: Community Ties and Social Support," *American Journal of Sociology* 96:558-88
- Barry Wellman, "The Community Question: The Intimate Networks of East Yorkers," *American Journal of Sociology* 84: 1201-31
- Scott Feld, "Why Your Friends Have More Friends Than You Do," *American Journal of Sociology* 96:1464-77
- Claire Bidart and Daniel Lavenu, "Evolutions of Personal Networks and Life Events," *Social Networks* 27: 359-76
- Filip Agneessens, Hans Waeye, and John Lievens, "Diversity in Social Support by Role Relations: A Typology," *Social Networks* 28: 427-41
- S. M. Kana'iaupuni, K. M. Donato, T. Thompson-Colon and M. Stainback, "Counting on Kin: Social Networks, Social Support, and Child Health Status," *Social Forces* 83: 1137-64
- Danching Ruan, "The Content of the General Social Survey Discussion Networks: An Exploration of General Social Survey Discussion Name Generator in a Chinese Context," *Social Networks*, 20: 247-64
- Benjamin Cornwell, Edward O. Laumann, and L. Philip Schumm, "The Social Connectedness of Older Adults: A National Profile," *American Sociological Review* 73: 185-203
- B. Wellman, R. Wong, D. Tindall, and N. Nazer, "A Decade of Network Change: Turn-over, Mobility and Stability," *Social Networks* 19: 27-51
- C. Wetherell, A. Plakans, and B. Wellman, "Social Networks, Kinship, and Community in Eastern Europe," *Journal of Interdisciplinary History* 24(4): 639-663
- Tom Snijders, M. Spreen, and R. Zwaagstra, "The Use of Multilevel Modeling for Analyzing Personal Networks: Networks of Cocaine Users in an Urban Area," *Journal of Quantitative Anthropology* 5: 85-110
- S. Roberts, G. Dunbar, T. V. Pollet, and T. Kuppens, "Exploring Variation in Active Network Size: Constraints and Ego Characteristics," *Social Networks* 31: 138-146
- Danching Ruan, L. C. Freeman, X. Dai, Y. Pan, and W. Zhang, "On the Changing Structure of Social Networks in Urban China," *Social Networks* 19: 75-89
- G. Plickert, R. R. Côté, and B. Wellman, "It's Not Who You Know, It's How You Know Them: Who Exchanges What with Whom?" *Social Networks* 29(3): 405-429
- Joel M. Podolny and James N. Baron, "Resources and Relationships: Social Networks and Mobility in the Workplace," *American Sociological Review* 62(5): 673-693
- G. Lai, "Social Support Networks in Urban Shanghai," *Social Networks* 23(1): 73-85
- R. P. L. Lee, D. Ruan, and G. Lai. 2005. "Social Structure and Support Networks in Beijing and Hong Kong," *Social Networks* 27: 249-274
- E. Litwak and I. Szelenyi, "Primary Group Structures and Their Functions: Kin, Neighbors, and Friends," *American Sociological Review* 34: 465-81
- M. Grossetti, "Are French Networks Different?" *Social Networks* 29: 391-404
- A. Degenne and M. O. Lebeaux, "The Dynamics of Personal Networks at the Time of Entry into Adult Life," *Social Networks* 27: 337-58
- Susan Bastani, "Family Comes First: Men's and Women's Personal Networks in Tehran," *Social Networks* 29(3): 357-374
- Candice Feiring, "Other-Sex Friendship Networks and the Development of Romantic Relationships in Adolescence," *Journal of Youth and Adolescence* 28:495-512
- John Levi Martin and King-To Yeung, "Persistence of Close Personal Ties Over a 12-year Period," *Social Networks* 28: 331-62
- Jill Suitor and Shirley Keeton, "Once a Friend, Always a Friend? Effects of Homophily on Women's Support Networks across a Decade," *Social Networks* 19:51-62
- Thomas A. DiPrete, Andrew Gelman, Tyler McCormick, Julien Teitler, and Tian Zheng, "Segregation in Social Networks Based on Acquaintanceship and Trust," *American Journal of Sociology* 116: 1234-83

**Week 11 (11/20)**      Networks and Culture

**Read: 1) McLean, *Culture in Networks*, chs. 3, 6**

**2) Neha Gondal and Paul D. McLean, “Linking Tie-meaning with Network Structure: Variable Connotations of Personal Lending in a Multiple-network Ecology,” *Poetics* 41: 122-150**

**3) Ann Mische, “Cross-Talk in Movements: Reconceiving the Culture-Network Link,” in Mario Diani and Doug McAdam (eds.), *Social Movement Analysis: The Network Perspective* (Oxford, 2003), pp. 258-80**

Some networks literature incorporating discourse, interaction, meaning, and/or tastes:

- Omar Lizardo, “How Cultural Tastes Shape Personal Networks,” *American Sociological Review* 71: 778-807
- Stephen Vaisey and Omar Lizardo, “Can Cultural Worldviews Influence Network Composition?” *Social Forces* 88: 1595-1618
- Mark Pachucki and Ronald L. Breiger, “Cultural Holes: Beyond Relationality in Social Networks and Culture,” *Annual Review of Sociology* 36 (2010): 205-24
- Jennifer Schultz and Ronald L. Breiger, “The Strength of Weak Culture,” *Poetics* 38: 610-24
- Ann Mische, *Partisan Publics: Communication and Contention Across Brazilian Youth Activist Networks* (Princeton, 2008)
- Ann Mische, “Relational Sociology, Culture, and Agency,” In *The Sage Handbook of Social Network Analysis*, ed. John Scott and Peter Carrington (Cambridge, 2011)
- David Gibson, “Taking Turns and Talking Ties: Networks and Conversational Interaction,” *American Journal of Sociology* 110:1561-97
- Jan A. Fuhse, “The Meaning Structure of Social Networks,” *Sociological Theory* 27: 51-73
- Jan A. Fuhse, “Networks from Communication,” *European Journal of Social Theory* 18: 39-59
- Mustafa Emirbayer and Jeff Goodwin, “Network Analysis, Culture, and the Problem of Agency,” *American Journal of Sociology* 99:1411-54
- Ann Mische and Harrison C. White, “Between Conversation and Situation: Public Switching Dynamics Across Network Domains,” *Social Research* 65:695-724
- Robert Faulkner, *Music on Demand: Composers and Careers in the Hollywood Film Industry* (especially the Foreword, Preface, and chs. 3, 5, 8, and 9)
- Eric Leifer, “Interaction Preludes to Role-Setting: Exploratory Local Action,” *American Sociological Review* 53:865-78
- Gary Alan Fine and Sherryl Kleinman, “Network and Meaning: An Interactionist Approach to Structure,” *Symbolic Interaction* 6: 97-110
- David Smilde, “A Qualitative Comparative Analysis of Conversion to Venezuelan Evangelicalism: How Networks Matter,” *American Journal of Sociology* 111: 757-96
- Ronald S. Burt, “Bandwidth and Echo: Trust, Information, and Gossip in Social Networks,” in James Rauch and Alessandra Casella (eds.), *Networks and Markets* (Russell Sage, 2001), pp. 30-74
- Vanina Leschziner, *At the Chef's Table: Culinary Creativity in Elite Restaurants* (Stanford, 2014)
- Barbalet, Jack. 2014. “The Structure of Guanxi: Resolving Problems of Network Assurance,” *Theory and Society* 43: 51-69
- Nick Crossley, “Pretty Connected: The Social Network of the Early UK Punk Movement.” *Theory, Culture and Society* 25: 89–116
- Nick Crossley, “Networks and Complexity: Directions for Interactionist Research?” *Symbolic Interaction* 33: 341-63
- Charles Kirschbaum, “Categories and Networks in Jazz Evolution: The Overlap Between Bandleaders’ Jazz Sidemen from 1930 to 1969,” *Poetics* 52: 154-78



Cognition, meaning, and text mapping:

- Peter S. Bearman and Katherine Stovel, "Becoming a Nazi: A Model for Narrative Networks," *Poetics* 27:69-90
- Kathleen Carley, "Extracting Culture Through Textual Analysis," *Poetics* 22:291-312
- Katherine Giuffre, "Sandpiles of Opportunity: Success in the Art World," *Social Forces* 77:815-32
- Kathleen M. Carley, "Coding Choices for Textual Analysis: A Comparison of Content Analysis and Map Analysis," *Sociological Methodology* 23: 75-126
- Ann Mische and Philippa Pattison, "Composing a Civic Arena: Publics, Projects, and Social Settings," *Poetics* 27:163-94
- Jennifer C. Lena and Richard A. Peterson, "Classification as Culture: Types and Trajectories of Music Genres," *American Sociological Review* 73: 697-718
- Linton C. Freeman, "Cliques, Galois Lattices, and the Structure of Human Social Groups," *Social Networks* 18:173-87
- William Bechtel and Adele Abrahamsen, *Connectionism and the Mind: An Introduction to Parallel Processing in Networks* (Blackwell, 1991)
- Edwin Hutchins, *Cognition in the Wild* (MIT, 1995)
- Karin Knorr-Cetina, *Epistemic Cultures: How the Sciences Make Knowledge* (Harvard, 1999)
- Barbara Entwisle, Katherine Faust, Ronald Rindfuss, and Toshika Kaneda, "Networks and Contexts: Variation in the Structure of Social Ties," *American Journal of Sociology* 112, 5: 1495-1533
- Alix Rule, Jean-Phillipe Cointet, and Peter Bearman, "Lexical Shifts, Substantive Changes, and Continuity in State of the Union Discourse, 1790–2014," *Proceedings of the National Academy of Science*, Aug 2015
- Rajesh Ranganath, Dan Jurafsky, and Daniel A. McFarland, "Detecting Friendly, Flirtatious, Awkward, and Assertive Speech in Speed-Dates." *Computer Speech and Language* 27: 89-115
- Rawlings, Craig M., Daniel A. McFarland, Linus P. Dahlander, and Daniel J. Wang, "Streams of Thought: How Ties Form and Influence Flows among New Faculty," *Social Forces* 93: 1687-1722
- Paul DiMaggio, Manish Nag, and David Blei, "Exploiting Affinities Between Topic Modeling and the Sociological Perspective on Culture: Application to Newspaper Coverage of U.S. Government Arts Funding," *Poetics* 41: 570-606
- Daniel A. McFarland, Daniel Ramage, Jason Chuang, Jeffrey Heer, Christopher D. Manning, and Daniel Jurafsky, "Differentiating Language Usage Through Topic Models," *Poetics* 41: 607-25
- Daniel A. McFarland, Dan Jurafsky, and Craig Rawlings, "Making the Connection: Social Bonding in Courtship Situations," *American Journal of Sociology* 118: 1596-1649

**Week 12 (11/27)      Diffusion Processes****Read: 1) McLean, *Culture in Networks*, chapter 4**

**2) Damon Centola and Michael Macy, "Complex Contagions and the Weakness of Long Ties," *American Journal of Sociology* 113: 702-34**

**3) N. A. Christakis and J. H. Fowler, "The Spread of Obesity in a Large Network," *New England Journal of Medicine* 357: 370-79**

**4) Matthew J. Salganik, Peter Sheridan Dodds, and Duncan J. Watts, "Experimental Study of Inequality and Unpredictability in an Artificial Cultural Market," *Science* 311 (2006): 854-856**

Lots of work on diffusion:

- James Coleman, Elihu Katz, and Herbert Menzel, *Medical Innovation: A Diffusion Study* James Coleman, Elihu Katz and H. Menzel, "The Diffusion of an Innovation Among Physicians," *Sociometry* 20:253-70
- Ronald S. Burt, "Cohesion Versus Structural Equivalence as a Basis for Network Subgroups," in Ronald Burt and M. Minor (eds.), *Applied Network Analysis: A Methodological Introduction*, pp. 262-82
- Noah Friedkin, "Structural Bases of Interpersonal Influence in Groups," *American Sociological Review* 58:862-72
- C. Clayton Childress and Noah E. Friedkin, "Cultural Reception and Production: The Social Construction of Meaning in Book Clubs," *American Sociological Review* 77: 45-68
- Noah E. Friedkin, *A Structural Theory of Social Influence* (Cambridge, 1998)
- Everett M. Rogers, *Diffusion of Innovations*, 5<sup>th</sup> edition
- David Strang and John W. Meyer, "Institutional Conditions for Diffusion," *Theory and Society* 22:487-511
- David Strang and Michael W. Macy, "In Search of Excellence: Fads, Success Stories, and Adaptive Emulation," *American Journal of Sociology* 107:147-82
- Peter V. Marsden and Noah Friedkin, "Network Studies of Social Influence," *Sociological Methods and Research* 22:127-51
- Gary Alan Fine, "Folklore Diffusion through Interactive Social Networks: Conduits in a Preadolescent Community," in his *Manufacturing Tales: Sex and Money in Contemporary Legends* (Tennessee, 1992)
- J. M. Cohen, "Peer Influence on College Aspirations," *American Sociological Review* 48: 728-34
- Thomas W. Valente, *Network Models of the Diffusion of Innovations* (Hampton, 1995)
- Thomas W. Valente and Rebecca L. Davis, "Accelerating the Diffusion of Innovations Using Opinion Leaders," *Annals of the American Academy of the Political and Social Sciences* 566:55-67
- Myong-Hun Chang and Joseph E. Harrington, Jr., "Discovery and Diffusion of Knowledge in an Endogenous Social Network," *American Journal of Sociology* 110: 937-76
- Craig Rawlings and Daniel A. McFarland, "The Ties that Influence: How Social Networks Channel Faculty Grant Productivity." *Social Science Research*
- Gerald F. Davis and Henrich R. Greve, "Corporate Elite Networks and Governance Changes in the 1980s," *American Journal of Sociology* 103: 1-37
- Ka-Yuet Liu, Marissa King, and Peter S. Bearman, "Social Influence and the Autism Epidemic," *American Journal of Sociology* 115: 1387-1434
- [lots of other articles by Bearman and collaborators on autism]
- M. J. Salganik and D. J. Watts, "Leading the Herd Astray: An Experimental Study of Self-fulfilling Prophecies in an Artificial Cultural Market," *Social Psychology Quarterly* 71: 338-55
- Dan J. Wang and Sarah A. Soule, "Social Movement Organizational Collaboration: Networks of Learning and the Diffusion of Protest Tactics, 1960-1995," *American Journal of Sociology* 117: 1674-1722
- Derek A. Kreager and Dana L. Haynie, "Dangerous Liaisons? Dating and Drinking Diffusion in Adolescent Peer Networks," *American Sociological Review* 76:737-63
- Damon Centola, "The Spread of Behavior in an Online Social Network Experiment," *Science* (2010): 1194-7
- Centola, Damon, Robb Willer, and Michael Macy, "The Emperor's Dilemma: A Computational Model of Self-Enforcing Norms," *American Journal of Sociology* 110: 1009-40

Epidemiology specifically:

- Samuel Friedman et al., "Sociometric Risk Networks and Risk for HIV Infection," *American Journal of Public Health* 87, 8: 1289-96
- Martina Morris, "Epidemiology and Social Networks," *Sociological Methods and Research* 22:99-126 [see other Morris work as well]
- James Moody, "The Importance of Relationship Timing for STD Diffusion: Indirect Connectivity and STD Infection Risk," *Social Forces* 81:25-56
- TJ Yamanis, JC Fisher, JW Moody, and LJ Kajula, "Young Men's Social Network Characteristics and Associations with Sexual Partnership Concurrency in Tanzania," *AIDS and Behavior* 20: 1244-55
- Rothenberg et al., "Choosing a Centrality Measure: Epidemiological Correlates in the Colorado Springs Study of Social Networks," *Social Networks* 17:273-97

Benjamin Cornwell, Edward O. Laumann, "Network Position and Sexual Dysfunction: Implications of Partner Betweenness for Men," *American Journal of Sociology* 117: 172-208  
 M. J. Salganik, D. Fazito, N. Bertoni, A. H. Abdo, M. B. Mello, and F. I. Bastos, "Assessing Network Scale-up Estimates for Groups Most at Risk for HIV/AIDS: Evidence from a Multiple Method Study of Heavy Drug Users in Curitiba, Brazil," *American Journal of Epidemiology*, in press?

### Week 13 (12/4)      Networks in Economic and Political Life

**Read: 1) John F. Padgett and Paul D. McLean, "Economic Credit in Renaissance Florence," *Journal of Modern History* 83, 1 (March 2011): 1-47**

**2) Christopher A. Bail, "The Fringe Effect: Civil Society Organizations and the Evolution of Media Discourse about Islam since the September 11<sup>th</sup> Attacks," *American Sociological Review* 77: 855-79 [or something else TBD]**

#### Various network approaches to transactions and markets:

John F. Padgett and Paul D. McLean, "Organizational Invention and Elite Transformation: The Birth of Partnership Systems in Renaissance Florence," *American Journal of Sociology* 111:1463-1568  
 Paul D. McLean and John F. Padgett, "Was Florence a Perfectly Competitive Market? Transactional Evidence from the Renaissance," *Theory and Society* 26:209-44  
 Emily Erikson and Peter Bearman, "Malfeasance and the Foundations for Global Trade: The Structure of English Trade in the East Indies, 1601–1833," *American Journal of Sociology* 112: 195-230  
 Emily Erikson, *Between Monopoly and Free Trade: The English East India Company, 1600–1757* (Princeton, 2015)  
 Theodore P. Gerber and Olga Mayorova, "Getting Personal: Networks and Stratification in the Russian Labor Market, 1985–2001," *American Journal of Sociology* 116: 855-908  
 Brian Uzzi, "The Sources and Consequences of Embeddedness for the Economic Performance of Organizations: The Network Effect," *American Sociological Review* 61:674-98  
 Brian Uzzi and Ryon Lancaster, "Embeddedness and Price Formation in the Corporate Law Market," *American Sociological Review* 69:319-44  
 Brian Uzzi, "Social Relations and Networks in the Making of Financial Capital," *American Sociological Review* 64:481-505  
 Joel Podolny, "Networks as the Pipes and Prisms of the Market," *American Journal of Sociology* 107:33-60  
 Ranjay Gulati and Martin Gargiulo, "Where Do Interorganizational Networks Come From?" *American Journal of Sociology* 104:1439-93  
 Joel Podolny, Toby E. Stuart, and Michael T. Hannan, "Networks, Knowledge, and Niches: Competition in the Worldwide Semiconductor Industry, 1984-1991," *American Journal of Sociology* 102:659-89  
 Stuart Macaulay, "Non-Contractual Relations in Business: A Preliminary Study," *American Sociological Review* 28:55-67  
 Jason Beckfield, "The Social Structure of the World Polity," *American Journal of Sociology* 115: 1018-68  
 Bruce G. Carruthers, *City of Capital* (Princeton, 1996)  
 Ezra W. Zuckerman and Stoyan V. Sgourev, "Peer Capitalism: Parallel Relationships in the U.S. Economy," *American Journal of Sociology* 111:1327-66  
 Mark S. Mizruchi and Linda Brewster Stearns, "Getting Deals Done: The Use of Social Networks in Bank Decision-Making," *American Sociological Review* 66:647-71  
 Mark S. Mizruchi, Linda Brewster Stearns, and Christopher Marquis, "The Conditional Nature of Embeddedness: A Study of Borrowing by Large U.S. Firms, 1973-1994," *ASR* 71:310-32

- Roberto M. Fernandez and Isabel Fernandez-Mateo, "Networks, Race, and Hiring," *American Sociological Review* 71:42-71
- Emilio J. Castilla, "Social Networks and Employee Performance in a Call Center," *American Journal of Sociology* 110:1243-83
- W. W. Powell, "Neither Market nor Hierarchy: Network Forms of Organization," *Research in Organizational Behavior* 12:295-336.
- Joel Podolny and Karen Page, "Network Forms of Organization," *Annual Review of Sociology* 24 (1998):57-76
- Paul Dimaggio and Hugh Louch, "Socially Embedded Consumer Transactions: For What Kinds of Purchases Do People Most Often use Networks?" *American Sociological Review* 63, 5: 619-37
- Mark S. Mizruchi and Linda B. Stearns, "A Longitudinal Study of the Formation of Interlocking Directorates," *Administrative Science Quarterly* 33:194-210
- Donald Palmer, Roger Friedland, and J. V. Singh, "The Ties that Bind: Organizational and Class Bases of Stability in a Corporate Interlock Network," *American Sociological Review* 51:781-96
- Mark S. Mizruchi, *The Structure of Corporate Political Action* (Harvard, 1992)
- Yusheng Peng, "Kinship Networks and Entrepreneurs in China's Transitional Economy," *American Journal of Sociology* 109:1045-74
- William G. Roy, "The Unfolding of the Interlocking Directorate Structure of the United States," *American Sociological Review* 48:248-57
- Bruce Kogut and Gordon Walker, "The Small World of Germany and the Durability of National Networks," *American Sociological Review* 66, 3: 317-35
- David Stark and Balász Vedres, "Social Times of Network Spaces: Network Sequences and Foreign Investment in Hungary," *American Journal of Sociology* 111: 1367-1411
- D. Mani and J. Moody, "Moving Beyond Stylized Economic Network Models: The Hybrid World of the Indian Firm Ownership Network," *American Journal of Sociology* 119: 1629-69

Brokerage, strategy, innovation, reputations:

- Roberto Fernandez and Roger Gould, "A Dilemma of State Power: Brokerage and Influence in the National Health Policy Domain," *American Journal of Sociology* 99:1455-91
- Roger Gould and Roberto Fernandez, "Structures of Mediation: A Formal Approach to Brokerage in Transaction Networks," *Sociological Methodology* 19:89-126
- Ronald S. Burt, *Structural Holes* (Chicago, 1992), especially Introduction and chapter 1
- Isabel Fernandez-Mateo, "Who Pays the Price of Brokerage? Transferring Constraint through Price Setting in the Staffing Sector," *American Sociological Review* 72: 291-317
- Henning Hillman, "Mediation in Multiple Networks: Elite Mobilization before the English Civil War," *American Sociological Review* 73: 426-54
- Vincent Buskens and Arnout van de Rijt, "Dynamics of Networks if Everyone Strives for Structural Holes," *American Journal of Sociology* 114: 371-407
- Robert Faulkner, *Music on Demand: Composers and Careers in the Hollywood Film Industry*
- Robin Cowan and Nicolas Jonard, "Structural Holes, Innovation and the Distribution of Ideas," *Journal of Economic Interaction and Coordination* 2: 93-110
- Wayne Baker and Robert Faulkner, "Role as Resource in the Hollywood Film Industry," *American Journal of Sociology* 97:279-309

Politics in various places:

- Peter Bearman, James Moody, and Robert Faris, "Blocking the Future," *Social Science History* 23:501-33
- Peter S. Bearman, *Relations into Rhetorics* (Rutgers, 1993)
- Peter Bearman, James Moody, and Robert Faris, "Networks and History," *Complexity* 8,1:61-71
- Roger V. Gould, *Insurgent Identities* (Chicago, 1995), especially chapters 1, 2, 6, 7
- Roger V. Gould, "Patron-Client Ties, State Centralization, and the Whiskey Rebellion," *American Journal of Sociology* 102:400-429
- Christopher K. Ansell, "Symbolic Networks: The Realignment of the French Working Class, 1887-1894," *American Journal of Sociology* 103:359-90
- Richard Lachmann, *Capitalists In Spite of Themselves* (Oxford, 2000)

- Daniel P. Carpenter, *The Forging of Bureaucratic Autonomy: Reputations, Networks, and Policy Innovation in Executive Agencies, 1862-1928* (Princeton, 2001)
- James D. Montgomery, "The Structure of Norms and Relations in Patronage Systems," *Social Networks* 29: 565-84
- Paul D. McLean, "Widening Access while Tightening Control: Office-holding, Marriages, and Elite Consolidation in Early Modern Poland," *Theory and Society* 33:167-212
- Paul D. McLean, "Patronage, Citizenship, and the Stalled Emergence of the Modern State in Renaissance Florence," *Comparative Studies in Society and History* 47:638-64
- Paul D. McLean, "Patrimonialism, Elite Networks, and Reform in Late Eighteenth Century Poland," *Annals of the American Association of Political and Social Science* 636 (July 2011): 88-110
- Carl H. Landé, "Networks and Groups in Southeast Asia: Some Observations on the Group Theory of Politics," *American Political Science Review* 67:103-27
- Fredrik Barth, *Political Leadership Among the Swat Pathans* (Athlone, 1965), especially chapters 7 and 9
- S. Schmidt, James Scott, Carl Landé, and Laura Guasti (eds.), *Friends, Followers, and Factions*
- Lily Ross Taylor, *Party Politics in the Age of Caesar* (California 1968 [1949])
- Dale Kent, *The Rise of the Medici: Faction in Florence, 1426-34* (Oxford, 1978)
- Martin Shefter, "The Emergence of the Political Machine: An Alternate View," in Willis D. Hawley et al. (eds.), *Theoretical Perspectives on Urban Politics* (Prentice-Hall, 1976)
- Edward O. Laumann and David Knoke, *The Organizational State* (Wisconsin, 1987)
- Henning Hillman, "Localism and the Limits of Political Brokerage: Evidence from Revolutionary Vermont," *American Journal of Sociology* 114: 287-331
- Adam Slez and John Levi Martin, "Political Action and Party Formation in the United States Constitutional Convention," *American Sociological Review* 72: 42-67
- Delia Baldassarri and Peter S. Bearman, "Dynamics of Political Polarization," *American Sociological Review* 72: 784-811
- Ryan Hagen, Kinga Makovi, and Peter Bearman, "The Influence of Political Dynamics on Southern Lynch Mob Formation and Lethality," *Social Forces* 92: 757-87
- Jeremy Boissevain, *Friends of Friends: Networks, Manipulators, and Coalitions*, especially chapter 1

Some of the vast networks-related social movements literature:

- David Snow, Louis Zurcher, and Sheldon Eklund-Olson, "Social Networks and Social Movements: A Microstructural Approach to Differential Recruitment," *American Sociological Review* 45:787-801
- Roberto Fernandez and Doug McAdam, "Social Networks and Social Movements: Multiorganizational Fields and Recruitment to Mississippi Freedom Summer," *Sociological Forum* 92:64-90.
- Marc Dixon and Vincent J. Roscigno, "Status, Networks, and Social Movement Participation: The Case of Striking Workers," *American Journal of Sociology* 108:1292-1327
- Florence Passy, "Social Networks Matter. But How?" in Mario Diani and Doug McAdam (eds.), *Social Movement Analysis: The Network Perspective* (Oxford, 2003), pp. 21-48
- Maryjane Osa, "Networks in Opposition: Linking Organizations through Activists in the Polish People's Republic," in Mario Diani and Doug McAdam (eds.), *Social Movement Analysis: The Network Perspective* (Oxford, 2003), pp. 77-104
- Roger V. Gould, "Why Do Networks Matter? Rationalist and Structuralist Interpretations," in Diani and McAdam (eds.), *Social Movement Analysis: The Network Perspective* (Oxford, 2003), pp. 233-57
- Delia Baldassarri and Mario Diani, "The Integrative Power of Civic Networks," *American Journal of Sociology* 113: 735-80
- Kenneth T. Andrews and Michael Biggs, "The Dynamics of Protest Diffusion: Movement Organizations, Social Networks, and News Media in the 1960 Sit-Ins," *American Sociological Review* 71: 752-77
- Rebecca Kolins Givan, Kenneth M. Roberts, and Sarah A. Soule, eds., *The Diffusion of Social Movements: Actors, Mechanisms, and Political Effects* (Cambridge, 2010)
- Magnus Thor Torfason and Paul Ingram, "The Global Rise of Democracy: A Network Account," *American Sociological Review* 75:355-77
- Kevin Lewis, Kurt Gray, and Jens Meierhenrich, "The Structure of Online Activism," *Sociological Science* (February 18, 2014) [doi 10.15195/v1.a1]

Network-based migration:

Alberto Palloni et al., "Social Capital and International Migration: A Test Using Information on Family Networks," *American Journal of Sociology* 106:1262-98

B. Davis, G. Steckloy, and P. Winters, "Domestic and International Migration from Rural Mexico: Disaggregating the Effects of Network Structure and Composition," *Population Studies* 56:291-309

Thomas Bauer and Klaus F. Zimmermann, "Network Migration of Ethnic Germans," *International Migration Review* 31:143-9

S. J. Gold, "Gender, Class, and Network: Social Structure and Migration Patterns Among Transnational Israelis," *Global Networks: A Journal of Transnational Affairs* 1:57-78

N. M. Shah and I. Menon, "Chain Migration through the Social Network: Experience of Labour Migrants in Kuwait," *International Migration* 37:361-82

Politics and Terrorism:

Christopher A. Bail, *Terrified: How Anti-Muslim Fringe Organizations Became Mainstream* (Princeton, 2015)

James Moody, "Fighting a Hydra: A Note on the Network Embeddedness of the War on Terror," *Structure and Dynamics: eJournal of Anthropological and Related Sciences* 1(2): Article 9.

Scott Gartner, "Ties to the Dead: Connections to Iraq War and 9/11 Casualties and Disapproval of the President," *American Sociological Review* 73, 4: 690-95

**Week 14 (12/11)      New Directions: Emergence and Computational Social Science**

**Read: 1) John F. Padgett and Walter W. Powell, "The Problem of Emergence," in John F. Padgett and Walter W. Powell, eds., *The Emergence of Organizations and Markets* (Princeton, 2012)**

**2) John Levi Martin, *Social Structures* (Princeton, 2009), chs. 1 and 5**

**3) Daniel A. McFarland, Kevin Lewis, and Amir Goldberg, "Sociology in the Era of Big Data: The Ascent of Forensic Social Science," *The American Sociologist* 47: 12-35**

Some other materials on emergence:

John F. Padgett and Paul D. McLean, "Organizational Invention and Elite Transformation: The Birth of Partnership Systems in Renaissance Florence." *American Journal of Sociology* 111: 1463-1568

Jeanette Colyvas and S. Maroulis. 2012. "Academic Laboratories and the Reproduction of Proprietary Science: Modeling Organizational Rules through Autocatalytic Networks." In John F. Padgett and Walter W. Powell, eds., *The Emergence of Organizations and Markets*. Princeton: Princeton University Press.

Neha Gondal, "The Local and Global Structure of Knowledge Production in an Emergent Research Field: An Exponential Random Graph Analysis." *Social Networks* 33: 20-30.

Walter W. Powell, Douglas R. White, Kenneth W. Koput, and Jason Owen-Smith, "Network Dynamics and Field Evolution: The Growth of Inter-organizational Collaboration in the Life Sciences," *American Journal of Sociology* 110: 1132-1205

Brian Uzzi and Jarrett Spiro, "Collaboration and Creativity: The Small World Problem," *American Journal of Sociology* 111:2, 447-504

Santa Fe Institute work on complexity:

- John F. Padgett, "Organizational Genesis in Florentine History: Four Multiple-Network Processes," unpublished ms.
- Walter Fontana and Leo Buss, "The Arrival of the Fittest: Toward a Theory of Biological Organization," *Bulletin of Mathematical Biology* 56:1-64
- Walter Fontana and Leo Buss, "The Barriers of Objects: From Dynamical Systems to Bounded Organizations," in John Casti et al. (eds.), *Boundaries and Barriers*
- Stuart Kauffman, *The Origins of Order: Self-Organization and Selection in Evolution* (Oxford, 1993)

Computational social science:

Work by Evans, Martin and Lee, Mohr?

Some work on network dynamics:

- Akbar Zaheer and Giuseppe Soda, "Network Evolution: The Origins of Structural Holes," *Administrative Science Quarterly* 54, 1: 1-31
- D. L. Morgan, M. B. Neal, and P. Carder, "The Stability of Core and Peripheral Networks Over Time," *Social Networks* 19, 1: 9-25
- Peter Monge and Marshall Scott Poole, "The Evolution of Organizational Communication," *Journal of Communication* 58, 4: 679-692
- R. Cowan, N. Jonard, and J.-B. Zimmermann, "Evolving Networks of Inventors," *Journal of Evolutionary Economics* 16, 1-2: 155-74
- A. Degenne and M. O. Lebeaux. 2005. "The Dynamics of Personal Networks at the Time of Entry into Adult Life." *Social Networks* 27(4):337-358.
- Maureen T. Hallinan and Edwin E. Hutchins, "Structural Effects on Dyadic Change," *Social Forces* 59:225-45
- Barry Wellman, Renita Yuk-Lin Wong, David Tindall, and Nancy Nazer, "A Decade of Network Change: Turnover, Persistence, and Stability in Personal Communities," *Social Networks* 19:27-50
- Ronald S. Burt, "Bridge Decay," *Social Networks* 24:333-363
- V. Eguiluz et al., "Cooperation and the Emergence of Role Differentiation in the Dynamics of Social Networks," *American Journal of Sociology* 110:977-1008
- Doug McAdam, "Beyond Structural Analysis: Toward a More Dynamic Understanding of Social Movements," in Mario Diani and Doug McAdam (eds.), *Social Movement Analysis: The Network Perspective* (Oxford, 2003), pp. 281-98
- Scott Moss and Bruce Edmonds, "Sociology and Simulation: Statistical and Qualitative Cross-Validation," *American Journal of Sociology* 110:1095-1131
- David Stark and Balázs Vedres, "Social Times of Network Spaces: Network Sequences and Foreign Investment in Hungary," *American Journal of Sociology* 111:1367-1411
- Walter W. Powell, Kenneth Koput, and Laurel Smith-Doerr, 1996, "Interorganizational Collaboration and the Locus of Innovation: Networks of Learning in Biotechnology," *Administrative Science Quarterly* 41:116-45

Dynamic network visualization:

- Skye Bender-deMoll and Daniel A. McFarland, "The Art and Science of Dynamic Network Visualization," *Journal of Social Structure*, vol. 7, no. 2
- James Moody, Daniel A. McFarland, and Skye Bender-deMoll, "Dynamic Network Visualization: Methods for Meaning with Longitudinal Network Movies," *American Journal of Sociology* 110:1206-65
- Paul D. McLean, "Pursuing and Representing Social Dynamics Radically: Marriage and Political Power in Early Modern Poland," ASA conference paper, Las Vegas, NV, August 2011

Acknowledgments: I benefited from consulting the syllabi of Neha Gondal, John Levi Martin, Dan McFarland, James Moody, and John Padgett, who in turn benefited from consulting the syllabi of (at the very least) Peter Bearman, Philip Bonacich, Peter Marsden, Mark Mizruchi, James Montgomery, and Duncan Watts.