

# PSYC 612: Seminar in Advanced Social Psychology Social Networks and Relationships Fall 2023 – Wednesday, 2:00pm-5:50pm

Location: VHE 210

Instructor: Professor Elisa Baek, Ph.D.

Office: SGM 805

Office Hours: Thursdays 12:00-1:00pm or by appointment

Contact Info: elisab@usc.edu

## **Course Description**

This course will provide an overview of social network analysis and how it has been, and can be, applied to study social connection and relationships broadly. While this is not a methods course, a part of the course will be dedicated to learning about key concepts in social network analysis and hands-on workshops for students to calculate network properties and visualizations using R. We will also read and discuss empirical papers that use social network analysis to study social connection and relationships; these papers will range in terms of populations studied (e.g., across development in humans, non-human primates, birds) and additional approaches/methods that are integrated along with social network analysis (e.g., neuroscience, experiments, biological measures). No prior knowledge of social network analysis is required to take the class.

## **Learning Objectives**

By the end of the course, students will be able to...

- 1. Explain fundamental theoretical concepts in social network analysis
- 2. Conduct basic social network analysis and visualizations in R
- 3. Assess the contribution of social network analysis in understanding social connection, social relationships, and well-being
- 4. Formulate a research proposal integrating social network analysis to their chosen research question

**Recommended Preparation:** It is highly recommended that you have proficient knowledge of R.

## Readings:

You will have a set of empirical papers that are required readings before each class. We will also be covering material from the following textbook. However, <u>you are not required to purchase the textbook</u>, although you are welcome to do so if you would like. I will be lecturing

materials from the book, and the lectures should be sufficient for you to grasp the methodological concepts in social network analysis for the scope of this class.

Borgatti, Stephen P., Martin G Everett, Jeffrey C Johnson, and Filip Agneessens.

Analyzing Social Networks Using R. 1st ed. SAGE Publications Ltd, 2022.

Link: <a href="https://us.sagepub.com/en-us/nam/analyzing-social-networks-using-r/book271675">https://us.sagepub.com/en-us/nam/analyzing-social-networks-using-r/book271675</a>

#### **Course Format**

The class meets once a week. Each week, students will come prepared having read several empirical papers so that they can thoughtfully engage during the class discussions.

Classes will typically be divided into the following sections, in order of occurrence:

- 1. Student-led discussions: Each class will open with student-led discussions on which will follow the "trial" format. All students are expected to engage in discussion during the "trial" as members of a jury. Each week, one student will sign up as "prosecutor" and one student will sign up as "defense" of a given empirical paper for that week. Please see below for more information on what a "trial" entails.
- 2. Methods overview: I will provide an overview of a methodological concept in social network analysis through a short lecture.
- 3. Methods workshop: We will dedicate the last part of each class for students to conduct social network analysis using R that align with the day's lecture. Students will complete tutorials and problem sets.

# **Grading Breakdown**

- 1. Class participation (30%), which consists of:
  - Your participation as a "prosecutor" or "defense" on the weeks that you lead the discussion
  - Your participation as a member of the jury the rest of the weeks
  - Your engagement in completing the tutorials and problem sets during the "methods workshop" portion of each class

The success of the course depends on everyone's full engagement, so please come prepared to be an active participant in the weekly discussions (we can tell when you're checking your email during class, so please try not to do this out of respect for your colleagues! ©) This goes without saying, but you also cannot participate if you don't attend class.

- 2. Response papers (20%): Each week, you should submit a 1-2 page (double spaced) response paper, turned in before midnight prior to the day of class (i.e., Tuesday evening). Response papers that are submitted after midnight but before class time will receive 50% credit. You can drop or skip one response paper at any time during the semester for any reason.
- 3. Final research grant proposal (50%), which consists of:
  - A proposal outline (due 10/04/2023; see below for more information)
  - Specific aims page (due 10/25/2023; see below for more information)
  - Presentation (either on 11/15/2023 or 11/29/2023; see below for more information)
  - Final proposal (due 12/11/2023; see below for more information)

## **Assignments**

## 1. "Trial" format (inspired by Dr. Elliot Berkman and Dr. Emily Falk)

Each week, we will engage in a lively discussion about a chosen empirical paper that follows a "trial" format. This is meant to mimic the peer review procedure that is set in place by journals. During the first week of class, students will sign-up to be "prosecutor/reviewer" or "defense/author" for a given week. The goal of this exercise is NOT to be overall critical, nasty, or mean—instead, please aim to be curious, humble, and constructive. Trials begin in Week 4; we will sign up for trials in class in Week 2.

### Prosecutor/Reviewer

Your role as a prosecutor/reviewer is to prepare a 2-minute overview of the paper in question, focusing on areas of weakness in the design AND constructive suggestions for how the paper might have been improved. You should also think of ways that you think the OTHER readings for the week may have had more compelling arguments/methodology than the article in question. You should become highly familiar with the methodological details of the paper. You should also be prepared to make a 1-minute rebuttal during the paper's trial.

### Defense/Author

Your role as defense/author is to prepare a 2-minute overview of the paper in question, focusing on areas of strength in the design/approach AND ways that this paper advances scientific knowledge/contributes something that the other papers from the week did not show. You should become highly familiar with the methodological details of the paper. You should also be prepared to make a 1-minute rebuttal during the paper's trial.

# Members of the Jury

As a member of the jury (all other weeks that you are not signed up to be prosecutor or defense), your job is to come to class having read all the readings and prepared to weigh the strengths and weaknesses of the arguments that are presented during the trial. You will serve as cross-examiners in which you can ask questions to the prosecution and defense. We will conclude the "jury" portion of each class with a "jury deliberation" (i.e., a discussion of the paper "on trial" as well as the other papers that you read for class that week). The trial will conclude with a class-wide vote on whether the paper on trial contributes significantly to science.

# 2. Response papers: due midnight prior to day of class (i.e., Tues evening)

Note: You can drop or skip one response paper at any time during the semester for any reason. You are NOT required to submit a response paper on the days that you serve as prosecution or defense.

Response papers are designed to help you organize your thoughts for the class discussion and to help identify the questions/issues that may be most relevant to the "trial" and the wider discussion. You can write about one or all of the assigned readings. You can do any of the following in your response papers:

- Relate the readings to prior weeks' readings or points that have come up in past class discussions
- Relate the readings to your own research
- Point out issues with the theory or methods in the readings, or contradictions between these readings and other ideas that have come up in the course (again, the goal of this exercise is NOT to be overall critical, nasty, or mean—instead, please aim to be curious, humble, and constructive).

## 3. Research grant proposal

Your final project for this class will be a research grant proposal, following an NIH R01 format. The grant proposal should incorporate some aspect of social network analysis (ideally, in line with your research interests). A full grant proposal includes MANY auxiliary documents (e.g., budget justification, personnel, facilities/resources, etc). For the purposes of the class assignment, I am only requiring that you submit the main substantive documents, as listed below.

### NIH R01 grant proposal

- Specific aims (1 page maximum)
- Research strategy (12 pages maximum), consisting of:
  - Significance
  - Innovation
  - Approach
- References

Link to instructions: <a href="https://www.niaid.nih.gov/grants-contracts/write-research-plan">https://www.niaid.nih.gov/grants-contracts/write-research-plan</a> (note that as psychologists we probably would not be submitting a grant to the NIAID, but the instructions here are helpful for putting together any R01)

To ensure that you are making progress on your final project and that you receive feedback early, the proposal will be broken down into the following assignments:

## Proposal outline: Due by 11:59pm on 10/4

The final proposal should incorporate some aspect of social network analysis to study a research question that is of interest to you and related to the course topics. The proposal outline (roughly around 1-2 pages) should answer the following questions:

- What broad area of research will your proposal be addressing?
- What research questions or hypotheses will you be addressing? What makes this an interesting issue to explore?
- Identify 5-10 references that you will use to start preparing to write your aims. I will give feedback to everyone's outlines by 10/18 so that you can incorporate the feedback while writing your specific aims.

## • Specific Aims page: Due by 11:59pm on 10/25

The specific aims page (1 page max; reference the NIH formatting guidelines) is thought to be the most important page in an NIH proposal. There are many examples that can be found online for resources on how to write a compelling specific aims page. Here are some that could be helpful:

- <a href="https://www.biosciencewriters.com/NIH-Grant-Applications-The-Anatomy-of-a-Specific-Aims-Page.aspx">https://www.biosciencewriters.com/NIH-Grant-Applications-The-Anatomy-of-a-Specific-Aims-Page.aspx</a>
- <a href="https://www.ninds.nih.gov/funding/preparing-your-application/preparing-research-plan/writing-specific-aims">https://www.ninds.nih.gov/funding/preparing-your-application/preparing-research-plan/writing-specific-aims</a>

## Grant proposal presentations: Either 11/15 or 11/29

You should prepare a presentation introducing and outlining your grant proposal, including background, specific aims/hypotheses, and approach (i.e., methods) to the class in a 15-minute presentation. The class will then ask questions for 3-5 minutes, which could be helpful feedback in making final edits to your proposal.

<u>Final proposal: Due by 11:59pm on 12/11</u>
 The final proposal should include specific aims, research strategy, and references that follow the NIH guidelines.

# **Academic Integrity**

The University of Southern California is foremost a learning community committed to fostering successful scholars and researchers dedicated to the pursuit of knowledge and the transmission of ideas. Academic misconduct is in contrast to the university's mission to educate students through a broad array of first-rank academic, professional, and extracurricular programs and includes any act of dishonesty in the submission of academic work (either in draft or final form).

This course will follow the expectations for academic integrity as stated in the USC Student Handbook. All students are expected to submit assignments that are original work and prepared specifically for the course/section in this academic term. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s). Students suspected of engaging in academic misconduct will be reported to the Office of Academic Integrity.

Other violations of academic misconduct include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the student handbook or the Office of Academic Integrity's website, and university policies on Research and Scholarship Misconduct.

Course Content Distribution and Synchronous Session Recordings Policies
USC has policies that prohibit recording and distribution of any synchronous and asynchronous course content outside of the learning environment.

Recording a university class without the express permission of the instructor and announcement to the class, or unless conducted pursuant to an Office of Student Accessibility Services (OSAS) accommodation. Recording can inhibit free discussion in the future, and thus infringe on the academic freedom of other students as well as the instructor. (<u>Living our Unifying Values: The USC Student Handbook</u>, page 13).

Distribution or use of notes, recordings, exams, or other intellectual property, based on university classes or lectures without the express permission of the instructor for purposes other than individual or group study. This includes but is not limited to providing materials for distribution by services publishing course materials. This restriction on unauthorized use also applies to all information, which had been distributed to students or in any way had been displayed for use in relationship to the class, whether obtained in class, via email, on the internet, or via any other media. (Living our Unifying Values: The USC Student Handbook, page 13).

## Policy on the Use of Al Generators

I expect you to use AI (e.g., ChatGPT and image generation tools) in this class. Learning to use AI is an emerging skill, and I welcome the opportunity to meet with you to provide guidance with these tools during office hours or after class. Keep in mind the following:

- Al tools are permitted to help you brainstorm topics or revise work you have already written.
- If you provide minimum-effort prompts, you will get low-quality results. You will need to refine your prompts to get good outcomes. This will take work.
- Proceed with caution when using AI tools and do not assume the information provided is
  accurate or trustworthy If it gives you a number or fact, assume it is incorrect unless you
  either know the correct answer or can verify its accuracy with another source. You will
  be responsible for any errors or omissions provided by the tool. It works best for topics
  you understand.
- Al is a tool, but one that you need to acknowledge using. Please include a paragraph at
  the end of any assignment that uses Al explaining how (and why) you used Al and
  indicate/specify the prompts you used to obtain the results what prompts you used to get
  the results. Failure to do so is a violation of academic integrity policies.
- Be thoughtful about when Al is useful. Consider its appropriateness for each assignment or circumstance. The use of Al tools requires attribution. You are expected to clearly attribute any material generated by the tool used.]

## **COURSE SCHEDULE**

## Week 1 - 8/23

Introduction to the course & Introduction to social network analysis

### Introduction

#### Lecture

Introduction to social networks

## Workshop

Problems & exercises - worksheet 1

### Week 2 - 8/30

# Pre-class preparation:

## Required readings:

Topic: Introductory papers

Hill, R. A., & Dunbar, R. I. M. (2003). Social network size in humans. *Human Nature*, 14(1), 53–72.

Hawe, P., Webster, C., & Shiell, A. (2004). A glossary of terms for navigating the field of social network analysis. *Journal of Epidemiology and Community Health*, 58(12), 971–975. https://doi.org/10.1136/jech.2003.014530

No response paper due this week

Discussion of readings; no trial this week

#### Lecture

Mathematical foundations

## Workshop

Problems & exercises – worksheet 2a & 2b

## Week 3 - 9/6

## Pre-class preparation:

Topic: Methodological considerations

## Required readings:

Padget, J. F., & Ansell, C. K. (1993). Robust action and the rise of the Medici, 1400-1434. *American Journal of Sociology*, 98(6), 1259–1319. https://www.jstor.org/stable/2781822

*Note*: Given the focus of our class, we will focus mostly on the authors' methodological approaches.

## Recommended readings:

- Vehovar, V., Lozar Manfreda, K., Koren, G., & Hlebec, V. (2008). Measuring egocentered social networks on the web: Questionnaire design issues. *Social Networks*, 30(3), 213–222. <a href="https://doi.org/10.1016/j.socnet.2008.03.002">https://doi.org/10.1016/j.socnet.2008.03.002</a>
- Straits, B. C. (2000). Ego's important discussants or significant people: An experiment in varying the wording of personal network name generators. *Social Networks*, 22(2), 123–140. https://doi.org/10.1016/S0378-8733(00)00018-6
- Pustejovsky, J. E., & Spillane, J. P. (2009). Question-order effects in social network name generators. *Social Networks*, *31*(4), 221–229. https://doi.org/10.1016/j.socnet.2009.06.001

Due: Response paper by 11:59pm on 9/5

## Paper discussion

Padget, J. F., & Ansell, C. K. (1993). Robust action and the rise of the Medici, 1400-1434. *American Journal of Sociology*, 98(6), 1259–1319. https://doi.org/10.1126/science.1165821

### Lecture

Methodological considerations in social network analysis

## Workshop

Problems & exercises – worksheet 3a & 3b

### Week 4 - 9/13

### Pre-class preparation:

## Required readings:

Topic: Social network properties and links to well-being

- Burt, R. S. (1987). A note on strangers, friends and happiness. *Social Networks*, 9(4), 311–331. <a href="https://doi.org/10.1016/0378-8733(87)90002-5">https://doi.org/10.1016/0378-8733(87)90002-5</a>
- Ueno, K. (2005). The effects of friendship networks on adolescent depressive symptoms. *Social Science Research*, *34*(3), 484–510. https://doi.org/10.1016/j.ssresearch.2004.03.002

Brent, L. J. N., Ruiz-Lambides, A., & Platt, M. L. (2017). Family network size and survival across the lifespan of female macaques. *Proceedings of the Royal Society B: Biological Sciences*, 284(1854). https://doi.org/10.1098/rspb.2017.0515

Due: Response paper by 11:59pm on 9/12

#### Trial

Paper on trial: Ueno, K. (2005). The effects of friendship networks on adolescent depressive symptoms. *Social Science Research*, *34*(3), 484–510. https://doi.org/10.1016/j.ssresearch.2004.03.002

Prosecutor: Emily

Defense: Jean, Chang

Lecture Centrality 1

## Workshop

Problems & exercises - worksheet 4

### Week 5 - 9/20

# Pre-class preparation:

## Required readings:

Topic: Neurobiological features of central individuals

- Baek, E. C., Hyon, R., López, K., Finn, E. S., Porter, M. A., & Parkinson, C. (2022). Indegree centrality in a social network is linked to coordinated neural activity.

  Nature Communications, 13(1), 1118. <a href="https://doi.org/10.1038/s41467-022-28432-3">https://doi.org/10.1038/s41467-022-28432-3</a>
- Zerubavel, N., Bearman, P. S., Weber, J., & Ochsner, K. N. (2015). Neural mechanisms tracking popularity in real-world social networks. *Proceedings of the National Academy of Sciences of the United States of America*, 112(49), 15072–15077. https://doi.org/10.1073/pnas.1511477112
- Ponzi, D., Zilioli, S., Mehta, P. H., Maslov, A., & Watson, N. V. (2016). Social network centrality and hormones: The interaction of testosterone and cortisol. *Psychoneuroendocrinology*, *68*, 6–13. https://doi.org/10.1016/j.psyneuen.2016.02.014
- Stiller, J., & Dunbar, R. I. M. (2007). Perspective-taking and memory capacity predict social network size. *Social Networks*, 29(1), 93–104. https://doi.org/10.1016/j.socnet.2006.04.001

# Recommended readings:

Smith, E. B., Brands, R. A., Brashears, M. E., & Kleinbaum, A. M. (2020). Social Networks and Cognition. *Annual Review of Sociology*, *46*, 159–174.

Due: Response paper by 11:59pm on 9/19

### Trial

Paper on trial: Zerubavel, N., Bearman, P. S., Weber, J., & Ochsner, K. N. (2015). Neural mechanisms tracking popularity in real-world social networks. *Proceedings of the National Academy of Sciences of the United States of America*, *112*(49), 15072–15077. https://doi.org/10.1073/pnas.1511477112

Prosecutor: Josh, Minci

Defense: Neshat

Lecture Centrality 2

### Workshop

Problems & exercises – worksheet 5

## Week 6 - 9/27

## Pre-class preparation:

## Required readings:

Topic: Neurobiological features of central individuals – insights from the non-human primate literature

Testard, C., Brent, L. J. N., Andersson, J., Chiou, K. L., Negron-Del Valle, J. E., DeCasien, A. R., Acevedo-Ithier, A., Stock, M. K., Antón, S. C., Gonzalez, O., Walker, C. S., Foxley, S., Compo, N. R., Bauman, S., Ruiz-Lambides, A. V., Martinez, M. I., Skene, J. H. P., Horvath, J. E., Unit, C. B. R., ... Sallet, J. (2022). Social connections predict brain structure in a multidimensional free-ranging primate society. *Science Advances*, 8(15), 1–12. <a href="https://doi.org/10.1126/sciadv.abl5794">https://doi.org/10.1126/sciadv.abl5794</a>

Sallet, J., Mars, R. B., Noonan, M. P., Andersson, J. L., O'Reilly, J. X., Jbabdi, S., Croxson, P. L., Jenkinson, M., Miller, K. L., & Rushworth, M. F. S. (2011). Social network size affects neural circuits in macaques. *Science*, *334*(6056), 697–700. https://doi.org/10.1126/science.1210027

Schrock, A. E., Leard, C., Lutz, M. C., Meyer, J. S., & Gazes, R. P. (2019). Aggression and social support predict long-term cortisol levels in captive tufted capuchin

monkeys (Cebus [Sapajus] apella). *American Journal of Primatology*, 81(7), 1–10. https://doi.org/10.1002/ajp.23001

Due: Response paper by 11:59pm on 9/26

### Trial

Paper on trial: Schrock, A. E., Leard, C., Lutz, M. C., Meyer, J. S., & Gazes, R. P. (2019). Aggression and social support predict long-term cortisol levels in captive tufted capuchin monkeys (Cebus [Sapajus] apella). *American Journal of Primatology*, 81(7), 1–10. https://doi.org/10.1002/ajp.23001

Prosecutor: Kira, Jackson

Defense: Begüm, Minci

#### Lecture

Dyad-level measures

### Workshop

No worksheet – Work on your proposals

## Week 7 - 10/4

# Pre-class preparation:

## Required readings:

Topic: Homophily

Lönnqvist, J. E., & Itkonen, J. V. A. (2016). Homogeneity of personal values and personality traits in Facebook social networks. *Journal of Research in Personality*, 60, 24–35. <a href="https://doi.org/10.1016/j.jrp.2015.11.001">https://doi.org/10.1016/j.jrp.2015.11.001</a>

Kovacs, B., & Kleinbaum, A. M. (2020). Language-Style Similarity and Social Networks. *Psychological Science*, 31(2), 202–213. https://doi.org/10.1177/0956797619894557

Parkinson, C., Kleinbaum, A. M., & Wheatley, T. (2018). Similar neural responses predict friendship. *Nature Communications*, 9(1), 332. https://doi.org/10.1038/s41467-017-02722-7

Centola, D. (2011). An experimental study of homophily in the adoption of health behavior. *Science*, 334(6060), 1269–1272. https://doi.org/10.1126/science.1207055

# Recommended readings:

McPherson, M., Smith-Lovin, L., & Cook, J. M. (2002). Birds of a feather: Homophily in social networks. *Annual Review of Sociology*, 27(1), 415–444. https://doi.org/10.1146/annurev.soc.27.1.415

**Due**: Response paper by 11:59pm on 10/3 **Proposal outline by 11:59pm on 10/4** 

#### Trial

Paper on trial: Centola, D. (2011). An experimental study of homophily in the adoption of health behavior. *Science*, *334*(6060), 1269–1272. https://doi.org/10.1126/science.1207055

Prosecutor: Jean

Defense: Emily, Chur

#### Lecture

Network-level measures

### Workshop

Problems & exercises - worksheet 7

#### Week 8 - 10/11 - NO CLASS

#### Week 9 - 10/18

## Pre-class preparation:

## Required readings:

Topic: Origins of cooperation and affiliative behaviors in social networks

Apicella, C. L., Marlowe, F. W., Fowler, J. H., & Christakis, N. A. (2012). Social networks and cooperation in hunter-gatherers. *Nature*, *481*(7382), 497–501. https://doi.org/10.1038/nature10736

Testard, C., Larson, S. M., Watowich, M. M., Kaplinsky, C. H., Bernau, A., Faulder, M., Marshall, H. H., Lehmann, J., Ruiz-Lambides, A., Higham, J. P., Montague, M. J., Snyder-Mackler, N., Platt, M. L., & Brent, L. J. N. (2021). Rhesus macaques build new social connections after a natural disaster. *Current Biology*, *31*(11), 2299-2309.e7. <a href="https://doi.org/10.1016/j.cub.2021.03.029">https://doi.org/10.1016/j.cub.2021.03.029</a>

Fowler, J. H., Dawes, C. T., & Christakis, N. A. (2009). Model of genetic variation in human social networks. *Proceedings of the National Academy of Sciences of the United States of America*, 106(6), 1720–1724. https://doi.org/10.1073/pnas.0806746106 Brent, L. J. N. (2015). Friends of friends: Are indirect connections in social networks important to animal behaviour? *Animal Behaviour*, *103*, 211–222. https://doi.org/10.1016/j.anbehav.2015.01.020

## Recommended readings:

Firth, J. A., Voelkl, B., Crates, R. A., Aplin, L. M., Biro, D., Croft, D. P., & Sheldon, B. C. (2017). Wild birds respond to flockmate loss by increasing their social network associations to others. *Proceedings of the Royal Society B: Biological Sciences*, 284(1854), 20170299. https://doi.org/10.1098/rspb.2017.0299

**Due**: Response paper by 11:59pm on 10/17

#### Trial

Paper on trial: Fowler, J. H., Dawes, C. T., & Christakis, N. A. (2009). Model of genetic variation in human social networks. *Proceedings of the National Academy of Sciences of the United States of America*, 106(6), 1720–1724. https://doi.org/10.1073/pnas.0806746106

Prosecutor: Chur, Jackson

Defense: Yalda, Michelle

### Lecture

Community detection

### Workshop

Problems & exercises – worksheet 9

#### Week 10 - 10/25

## Pre-class preparation:

## Required readings:

Topic: Spread of behavior in social networks/social influence

Christakis, N. A., & Fowler, J. H. (2007). The spread of obesity in a large social network over 32 years. *The New England Journal of Medicine*, 357(4), 370–379. <a href="https://doi.org/10.1056/NEJMsa066082">https://doi.org/10.1056/NEJMsa066082</a>

Fowler, J. H., & Christakis, N. A. (2008). Dynamic spread of happiness in a large social network: Longitudinal analysis over 20 years in the Framingham Heart Study. BMJ, 338(7685), 23–26. https://doi.org/10.1136/bmj.a2338

Centola, D. (2010). The spread of behavior in an online social network experiment. *Science*, 329(5996), 1194–1197. https://doi.org/10.1126/science.1185231

## Recommended readings:

Coviello, L., Sohn, Y., Kramer, A. D. I., Marlow, C., Franceschetti, M., Christakis, N. A., & Fowler, J. H. (2014). Detecting emotional contagion in massive social networks. *PLoS ONE*, *9*(3), e90315. <a href="https://doi.org/10.1371/journal.pone.0090315">https://doi.org/10.1371/journal.pone.0090315</a>

Due: Response paper by 11:59pm on 10/24

Aims page by 11:59pm on 10/25

### Trial

Paper on trial: Dynamic spread of happiness in a large social network: Longitudinal analysis over 20 years in the Framingham Heart Study. *BMJ*, 338(7685), 23–26. https://doi.org/10.1136/bmj.a2338

Prosecutor: Yema, Jinsol

Defense: Avisha

## Workshop

No worksheet – Work on your aims if you haven't submitted yet ☺ -- they are due at 11:59pm today!

### Week 11 - 11/1

### Pre-class preparation:

# Required readings:

Topic 1: Social Network Interventions

Valente, T. W. (2012). Network interventions. *Science*, 337(49), 49–53. https://doi.org/10.1126/science.1217330

Edwards, K. M., Banyard, V. L., Waterman, E. A., Simon, B., Hopfauf, S., Mitchell, K. J., Jones, L. M., Mercer Kollar, L. M., & Valente, T. W. (2023). Diffusion effects of a sexual violence prevention program leveraging youth–adult partnerships. American Journal of Community Psychology, ajcp.12645. <a href="https://doi.org/10.1002/ajcp.12645">https://doi.org/10.1002/ajcp.12645</a>

Paluck, E. L., Shepherd, H., & Aronow, P. M. (2016). Changing climates of conflict: A social network experiment in 56 schools. *Proceedings of the National Academy of Sciences*, 113(3), 566–571. https://doi.org/10.1073/pnas.1514483113

Topic 2: Perceiving and tracking our social worlds

Neal, J. W., Neal, Z. P., & Cappella, E. (2016). Seeing and being seen: Predictors of accurate perceptions about classmates' relationships. *Social Networks*, *44*, 1–8. <a href="https://doi.org/10.1016/j.socnet.2015.07.002">https://doi.org/10.1016/j.socnet.2015.07.002</a>

- Morelli, S. A., Leong, Y. C., Carlson, R. W., Kullar, M., & Zaki, J. (2018). Neural detection of socially valued community members. *Proceedings of the National Academy of Sciences of the United States of America*, 201712811. <a href="https://doi.org/10.1073/pnas.1712811115">https://doi.org/10.1073/pnas.1712811115</a>
- Parkinson, C., Kleinbaum, A. M., & Wheatley, T. (2017). Spontaneous neural encoding of social network position. *Nature Human Behaviour*, *1*, 0072. <a href="https://doi.org/10.1038/s41562-017-0072">https://doi.org/10.1038/s41562-017-0072</a>

## Recommended readings:

- Bond, R. M., Fariss, C. J., Jones, J. J., Kramer, A. D. I., Marlow, C., Settle, J. E., & Fowler, J. H. (2012). A 61-million-person experiment in social influence and political mobilization. *Nature*, *489*(7415), 295–298. https://doi.org/10.1038/nature11421.A
- Shepherd, H., & Paluck, E. L. (2015). Stopping the drama: Gendered influence in a network field experiment. *Social Psychology Quarterly*, 78(2), 173–193. https://doi.org/10.1177/0190272515581212
- Guthrie, T. D., Benadjaoud, Y. Y., & Chavez, R. S. (2021). Social relationship strength modulates the similarity of brain-to-brain representations of group members. Cerebral Cortex, September 2021, 2469–2477. https://doi.org/10.1093/cercor/bhab355
- Schwyck, M. E., Du, M., Natarajan, P., Chwe, J. A., & Parkinson, C. (2023). Neural encoding of novel social networks: Evidence that perceivers prioritize others' centrality. *Social Cognitive and Affective Neuroscience*, *18*(1), nsac059. https://doi.org/10.1093/scan/nsac059

Due: Response paper by 11:59pm on 10/31

#### Trial 1

Paper on trial: Paluck, E. L., Shepherd, H., & Aronow, P. M. (2016). Changing climates of conflict: A social network experiment in 56 schools. *Proceedings of the National Academy of Sciences*, 113(3), 566–571. https://doi.org/10.1073/pnas.1514483113

Prosecutor: Yalda

Defense: Josh

### Trial 2

Paper on trial: Morelli, S. A., Leong, Y. C., Carlson, R. W., Kullar, M., & Zaki, J. (2018). Neural detection of socially valued community members. *Proceedings of the National Academy of Sciences of the United States of America*, 201712811. <a href="https://doi.org/10.1073/pnas.1712811115">https://doi.org/10.1073/pnas.1712811115</a>

Prosecutor: Chang, Michelle

Defense: Kira

Workshop

No workshop this week

### Week 12 - 11/8

## Pre-class preparation:

## Required readings:

Topic 1: Personality and social network positions

- Roberts, S. G. B., Wilson, R., Fedurek, P., & Dunbar, R. I. M. (2008). Individual differences and personal social network size and structure. *Personality and Individual Differences*, *44*(4), 954–964. https://doi.org/10.1016/j.paid.2007.10.033
- Morelli, S. A., Ong, D. C., Makati, R., Jackson, M. O., & Zaki, J. (2017). Empathy and well-being correlate with centrality in different social networks. *Proceedings of the National Academy of Sciences of the United States of America*, *114*(37), 9843–9847. https://doi.org/10.1073/pnas.1702155114
- Kardos, P., Leidner, B., Pléh, C., Soltész, P., & Unoka, Z. (2017). Empathic people have more friends: Empathic abilities predict social network size and position in social network predicts empathic efforts. *Social Networks*, 50, 1–5. https://doi.org/10.1016/j.socnet.2017.01.004
- Feiler, D. C., & Kleinbaum, A. M. (2015). Popularity, similarity, and the network extraversion bias. *Psychological Science*, *26*(5), 593–603. https://doi.org/10.1177/0956797615569580

## Topic 2: Brokerage

- Wood, A., Kleinbaum, A. M., & Wheatley, T. (2022). Cultural diversity broadens social networks. *Journal of Personality and Social Psychology*. https://doi.org/10.1037/pspi0000395
- O'Donnell, M. B., Bayer, J. B., Cascio, C. N., & Falk, E. B. (2017). Neural bases of recommendations differ according to social network structure. *Social Cognitive and Affective Neuroscience*, 12(1), 61–69. <a href="https://doi.org/10.1093/scan/nsw158">https://doi.org/10.1093/scan/nsw158</a>
- Oh, H., & Kilduff, M. (2008). The ripple effect of personality on social structure: Self-monitoring origins of network brokerage. *Journal of Applied Psychology*, 93(5), 1155–1164. <a href="https://doi.org/10.1037/0021-9010.93.5.1155">https://doi.org/10.1037/0021-9010.93.5.1155</a>

Due: Response paper by 11:59pm on 11/7

## Recommended readings:

Gest, S. D., Graham-Bermann, S. A., & Hartup, W. W. (2001). Peer experience: Common and unique features of number of friendships, social network centrality, and sociometric status. *Social Development*, *10*(1), 23–40. https://doi.org/10.1111/1467-9507.00146

Schmälzle, R., O'Donnell, M. B., Garcia, J. O., Cascio, C. N., Bayer, J., Bassett, D. S., Vettel, J. M., & Falk, E. B. (2017). Brain connectivity dynamics during social interaction reflect social network structure. Proceedings of the National Academy of Sciences of the United States of America, 114(20), 5153–5158. https://doi.org/10.1073/pnas.1616130114

#### Trial 1

Paper on trial: Feiler, D. C., & Kleinbaum, A. M. (2015). Popularity, similarity, and the network extraversion bias. *Psychological Science*, *26*(5), 593–603. https://doi.org/10.1177/0956797615569580

Prosecutor: Avisha, Neshat

Defense: Kyla, Jinsol

## Trial 2

Paper on trial: Oh, H., & Kilduff, M. (2008). The ripple effect of personality on social structure: Self-monitoring origins of network brokerage. *Journal of Applied Psychology*, 93(5), 1155–1164. <a href="https://doi.org/10.1037/0021-9010.93.5.1155">https://doi.org/10.1037/0021-9010.93.5.1155</a>

Prosecutor: Kyla, Begüm

Defense: Yema

## Workshop

No workshop this week

Week 13 November 15	Student presentations
Week 14 November 22	NO CLASS (THANKSGIVING)
Week 15 November 29	Student presentations
FINAL December 11	FINAL PROPOSAL DUE by 11:59pm

## **Statement on Academic Conduct and Support Systems**

## **Academic Integrity:**

The University of Southern California is a learning community committed to developing successful scholars and researchers dedicated to the pursuit of knowledge and the dissemination of ideas. Academic misconduct, which includes any act of dishonesty in the production or submission of academic work, comprises the integrity of the person who commits the act and can impugn the perceived integrity of the entire university community. It stands in opposition to the university's mission to research, educate, and contribute productively to our community and the world.

All students are expected to submit assignments that represent their own original work, and that have been prepared specifically for the course or section for which they have been submitted. You may not submit work written by others or "recycle" work prepared for other courses without obtaining written permission from the instructor(s).

Other violations of academic integrity include, but are not limited to, cheating, plagiarism, fabrication (e.g., falsifying data), collusion, knowingly assisting others in acts of academic dishonesty, and any act that gains or is intended to gain an unfair academic advantage.

The impact of academic dishonesty is far-reaching and is considered a serious offense against the university. All incidences of academic misconduct will be reported to the Office of Academic Integrity and could result in outcomes such as failure on the assignment, failure in the course, suspension, or even expulsion from the university.

For more information about academic integrity see the student handbook or the Office of Academic Integrity's website, and university policies on Research and Scholarship Misconduct.

Please ask your instructor if you are unsure what constitutes unauthorized assistance on an exam or assignment, or what information requires citation and/or attribution.

## **Students and Disability Accommodations:**

USC welcomes students with disabilities into all of the University's educational programs. The Office of Student Accessibility Services (OSAS) is responsible for the determination of appropriate accommodations for students who encounter disability-related barriers. Once a student has completed the OSAS process (registration, initial appointment, and submitted documentation) and accommodations are determined to be reasonable and appropriate, a Letter of Accommodation (LOA) will be available to generate for each course. The LOA must be given to each course instructor by the student and followed up with a discussion. This should be done as early in the semester as possible as accommodations are not retroactive. More information can be found at <a href="mailto:osas.usc.edu">osas.usc.edu</a>. You may contact OSAS at (213) 740-0776 or via email at <a href="mailto:osasfrontdesk@usc.edu">osasfrontdesk@usc.edu</a>.

# **Support Systems:**

Counseling and Mental Health - (213) 740-9355 - 24/7 on call

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

988 Suicide and Crisis Lifeline - 988 for both calls and text messages - 24/7 on call

The 988 Suicide and Crisis Lifeline (formerly known as the National Suicide Prevention Lifeline) provides free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week, across the United States. The Lifeline is comprised of a national network of over 200 local crisis centers, combining custom local care and resources with national standards and best practices. The new, shorter phone number makes it easier for people to remember and access mental health crisis services (though the previous 1 (800) 273-8255 number will continue to function indefinitely) and represents a continued commitment to those in crisis.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL) - 24/7 on call

Free and confidential therapy services, workshops, and training for situations related to genderand power-based harm (including sexual assault, intimate partner violence, and stalking).

Office for Equity, Equal Opportunity, and Title IX (EEO-TIX) - (213) 740-5086 Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

<u>Reporting Incidents of Bias or Harassment</u> - (213) 740-5086 or (213) 821-8298 Avenue to report incidents of bias, hate crimes, and microaggressions to the Office for Equity, Equal Opportunity, and Title for appropriate investigation, supportive measures, and response.

<u>The Office of Student Accessibility Services (OSAS)</u> - (213) 740-0776 OSAS ensures equal access for students with disabilities through providing academic

OSAS ensures equal access for students with disabilities through providing academic accommodations and auxiliary aids in accordance with federal laws and university policy.

# USC Campus Support and Intervention - (213) 740-0411

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

## Diversity, Equity and Inclusion - (213) 740-2101

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

<u>USC Emergency</u> - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

<u>USC Department of Public Safety</u> - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call Non-emergency assistance or information.

Office of the Ombuds - (213) 821-9556 (UPC) / (323-442-0382 (HSC)

A safe and confidential place to share your USC-related issues with a University Ombuds who will work with you to explore options or paths to manage your concern.

Occupational Therapy Faculty Practice - (323) 442-2850 or otfp@med.usc.edu
Confidential Lifestyle Redesign services for USC students to support health promoting habits and routines that enhance quality of life and academic performance.