

SEMINAR COURSE · 6 CREDIT POINTS

# Social Contagion

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Summer Term 2016

Monday 10am – 13:30pm in 335 (Greinstraße 2) / 0.12

Office hour:

Wednesday 14:30pm – 15:30pm in 335 (Greinstraße 2) / 0.05

*Please make an email request in advance!*

## COURSE DESCRIPTION

Individuals within the same social network (i.e. “peers”) generally are more similar with regard to traits and behaviors than a random sample of individuals. One popular explanation for this phenomenon is the presence of social contagion, that is, the transmission of behavior from one (group of) individual(s) to another. The universal expression of parental concern whether you would jump off a bridge if your best friend did is a classic example from everyday life that deals with social contagion. Other traits and behaviors for which social contagion has been proposed are as varied as suicide, obesity, substance abuse, fertility, crime, political participation, and antisocial behavior, just to name a few.

In the course, we first develop a clear conceptualization of social networks and social contagion. Thereafter, we discuss alternative explanations of peer similarity, key among them shared environment and selection into networks based on homophily (“birds of a feather flock together”). The first part of the course concludes with an overview of the (severe) methodological challenges of actually identifying social contagion and the resulting demands on research design and data. In the second part of the course, we systematically review select empirical studies of social contagion with an emphasis on the quality of theoretical argument and research design, particularly the degree to which each study deviates from an “ideal” approach for investigating social contagion. Besides an introduction to the literature on social contagion (and its limitations), a key objective of the course is to sharpen participants’ perception and understanding of typical analytical challenges encountered in empirical social research and to highlight the importance of sound research design as opposed to statistical wizardry.

## LITERATURE AND COURSE MATERIALS

The course builds on select works on the theory of social contagion and on the methodology for its empirical analysis as well as on exemplary studies in various subject areas. Some of these texts are required reading in preparation for course sessions. Others provide additional background or deepen the contents of a given session. All readings and course materials such as slides and instructions for completing the assignments can be found on the *Ilias*-Page of the course. For some sessions, I also provided links to videos that relate to the respective contents. For those of you interested in social networks more generally, I recommend the following books and article as possible starting points:

David Easley and Jon Kleinberg (2010). *Networks, Crowds, and Markets: Reasoning about a Highly Connected World*. New York: Cambridge University Press.  
John G. Scott and Peter J. Carrington, eds. (2011). *The Sage Handbook of Social Network Analysis*. London: Sage.  
Duncan J. Watts (2004). "The "new" science of networks". In: *Annual Review of Sociology* 30, pp. 243–270.

Several popular science books also deal with networks and social contagion, for example:

Nicholas A. Christakis and James H. Fowler (2010). *Connected: The Amazing Power of Social Networks and How They Shape Our Lives*. London: Harper Press.  
Malcolm Gladwell (2000). *The Tipping Point: How Little Things Can Make a Big Difference*. Boston: Little, Brown.

## COURSE REQUIREMENTS AND GRADING

First and foremost, the course requires your regular and active participation. But I also expect you to engage with the course contents outside class. Obviously, this includes detailed preparation of the required readings ahead of class. I explicitly encourage you to do so in pairs or small groups to facilitate conversation and exchange that goes beyond the printed letters. For each class, note at least a couple of questions or problems that you would like to be addressed. Feel free to bring to class additional materials on a given topic, be it literature, media reports, or videos. A discussion forum on *Ilias* aims to support this process by providing a space to post questions for discussion or web links.

Moreover, you are expected to complete two assignments that provide the basis for the final grade:

1. A succinct overview of social contagion in a specific domain (75% of final grade)
2. A detailed discussion of the strengths and weaknesses of a specific empirical study of social contagion in a different domain (25% of final grade)

Each written assignment is preceded by an oral presentation (of up to 20 min) during the second half of the course. In one presentation, you take the role of the author and introduce an empirical study to the class. In the other, you take the role of the critic and address the strengths and weaknesses of another study.

Detailed instructions for preparing both presentations/assignments will be provided separately. Deadline for submission of the written assignments is **5 August 2016, 12pm**. You successfully pass the course if you hold both presentations and complete both assignments with a grade of 4.0 or better. Gross violations of formal scientific standards (e.g., plagiarism) may result in a failing grade.

## COURSE SCHEDULE<sup>1</sup>

### 11 APRIL I • INTRODUCTION AND ORGANIZATION

#### *Further reading*

David Easley and Jon Kleinberg (2010). *Networks, Crowds, and Markets: Reasoning about a Highly Connected World*. New York: Cambridge University Press. **Read sections 4.1–4.2.**

David Merritt Johns (2010a). *Everything is contagious I: Has a plague of social illness struck mankind?* Slate. URL: <http://goo.gl/FVgv92>.

#### *Video*

Nicholas Christakis: The Sociological Science Behind Social Networks and Social Influence <https://www.youtube.com/watch?v=wadBvDPeE4E>

### 11 APRIL II • MECHANISMS OF SOCIAL CONTAGION

#### *Further reading*

Paul DiMaggio and Filiz Garip (2012). “Network Effects and Social Inequality”. In: *Annual Review of Sociology* 38, pp. 93–118. DOI: 10.1146/annurev.soc.012809.102545.

H. Peyton Young (2009). “Innovation diffusion in heterogeneous populations: Contagion, social influence, and social learning”. In: *American Economic Review* 99(5), pp. 1899–1924.

### 18 APRIL I • OTHER SOURCES OF PEER SIMILARITY

#### *Required reading*

David Merritt Johns (2010b). *Everything is contagious II: Doubts about the social plague stir in the human superorganism*. Slate. URL: <http://goo.gl/vRCLYB>.

Cosma Rohilla Shalizi and Andrew C. Thomas (2011). “Homophily and Contagion Are Generically Confounded in Observational Social Network Studies”. In: *Sociological Methods & Research* 40(2), pp. 211–239. DOI: 10.1177/0049124111404820.

#### *Further reading*

Paul F. Lazarsfeld and Robert K. Merton (1954). “Friendship as social process: A substantive and methodological analysis”. In: *Freedom and Control in Modern Society*. Ed. by Morroe Berger, Theodore Abel, and Charles H. Page. New York: Van Nostrand, pp. 18–66.

Miller McPherson, Lynn Smith-Lovin, and James M. Cook (2001). “Birds of a feather: Homophily in social networks”. In: *Annual Review of Sociology* 27, pp. 415–444. DOI: DOI10.1146/annurev.soc.27.1.415.

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<sup>1</sup>Subject to change.

*Video*

Sinan Aral: Social Contagion  
[http://www.tedxsv.org/?page\\_id=1190](http://www.tedxsv.org/?page_id=1190)

**18 APRIL II • EMPIRICAL ANALYSIS OF SOCIAL CONTAGION**

*Required reading*

Weihua An (2011). "Models and methods to identify peer effects". In: *The Sage Handbook of Social Network Analysis*. Ed. by John G. Scott and Peter J. Carrington. London: Sage, pp. 515–532. **Read pages 514–518, 520–525, 526–527.**

Tyler J. VanderWeele and Weihua An (2013). "Social networks and causal inference". In: *Handbook of Causal Analysis for Social Research*. Ed. by Stephen L. Morgan. Dordrecht: Springer, pp. 353–374. DOI: 10.1007/978-94-007-6094-3\_17. **Read pages 353–360, 363–371.**

*Further reading*

Ted Mouw (2006). "Estimating the causal effect of social capital: A review of recent research". In: *Annual Review of Sociology* 32, pp. 79–102. DOI: 10.1146/annurev.soc.32.061604.123150.

*Video*

Cosma Shalizi: Are Observational Studies of Social Contagion Doomed?  
<https://www.youtube.com/watch?v=P5bAAGov7gU>

**25 APRIL I • REVIEWING JOURNAL ARTICLES I**

*Required reading*

David Merritt Johns (2011). *Disconnected?* Slate. URL: <http://goo.gl/Y385xY>.

*Further reading*

How to perform a peer review  
<http://goo.gl/ilCkCF>

Peer review: The nuts and bolts  
<http://goo.gl/ZaAEKI>

Reviewing journal manuscripts  
<http://goo.gl/jBuxj7>

**25 APRIL II • REVIEWING JOURNAL ARTICLES II**

*Required reading*

Nicholas A. Christakis and James H. Fowler (2007). "The spread of obesity in a large social network over 32 years". In: *New England Journal of Medicine* 357 (4), pp. 370–379. DOI: 10.1056/Nejmsa066082.

Russell Lyons (2011). "The spread of evidence-poor medicine via flawed social-network

analysis". In: *Statistics, Politics, and Policy* 2 (1), pp. 1–26. DOI: 10.2202/2151-7509.1024.

*Further reading*

Tyler J. VanderWeele, Elizabeth L. Ogburn, and Eric J. Tchetgen Tchetgen (2012). "Why and when "flawed" social network analyses still yield valid tests of no contagion". In: *Statistics, Politics, and Policy* 3 (1), pp. 1–11. DOI: 10.1515/2151-7509.1050.

Cosma Rohilla Shalizi (2012). "Comment on "Why and when 'flawed' social network analyses still yield valid tests of no contagion"". In: *Statistics, Politics, and Policy* 3 (1), pp. 1–3. DOI: 10.1515/2151-7509.1053.

## 2 MAY I • SUICIDAL BEHAVIOR

*Required reading*

Seth Abrutyn and Anna S. Mueller (2014). "Are Suicidal Behaviors Contagious in Adolescence? Using Longitudinal Data to Examine Suicide Suggestion". In: *American Sociological Review* 79 (2), pp. 211–227. DOI: 10.1177/0003122413519445.

## 2 MAY II • NONFATAL GUNSHOT INJURIES

*Required reading*

Andrew V. Papachristos, Christopher Wildeman, and Elizabeth Roberto (2015). "Tragic, but not random: The social contagion of nonfatal gunshot injuries". In: *Social Science & Medicine* 125, pp. 139–150. DOI: 10.1016/j.socscimed.2014.01.056.

## 9 MAY I • ANTISOCIAL BEHAVIOR

*Required reading*

Milena Tsvetkova and Michael W. Macy (2015). "The Social Contagion of Antisocial Behavior". In: *Sociological Science* 2, pp. 36–49. DOI: 10.15195/v2.a4.

## 9 MAY II • ALTRUISTIC BEHAVIOR

*Required reading*

Nicola Lacetera, Mario Macis, and Angelo Mele (2016). "Viral Altruism? Charitable Giving and Social Contagion in Online Networks". In: *Sociological Science* 3, pp. 202–238. DOI: 10.15195/v3.a11.

## 23 MAY I • ALCOHOL USE

*Required reading*

Guang Guo et al. (2015). "A natural experiment of peer influences on youth alcohol use". In: *Social science research* 52, pp. 193–207. DOI: 10.1016/j.ssresearch.2015.01.002.

## 23 MAY II • FERTILITY

### *Required reading*

Torkild Hovde Lyngstad and Alexia Prskawetz (2010). "Do Siblings' Fertility Decisions Influence Each Other?" In: *Demography* 47 (4), pp. 923–934. DOI: 10.1007/Bf03213733.

## 30 MAY I • PRODUCT ADOPTION

### *Required reading*

Sinan Aral, Lev Muchnik, and Arun Sundararajan (2009). "Distinguishing influence-based contagion from homophily-driven diffusion in dynamic networks". In: *Proceedings of the National Academy of Sciences of the United States of America* 106 (51), pp. 21544–21549. DOI: 10.1073/pnas.0908800106.

## 30 MAY II • CONCLUSION AND EVALUATION