

PSYCHOLOGY 414:
Changing Minds: The psychology of individual and collective beliefs

I. WHEN AND WHERE: Wednesdays from 1:30pm to 4:20pm
Room: Jadwin Hall, Room 303

II. INSTRUCTOR: Alin Coman, Ph.D.
acoman@princeton.edu
Office hours: by appointment

III. COURSE DESCRIPTION/OVERVIEW: Understanding how people believe and how what they believe impacts their behavior has recently become a central topic across the social sciences. This recent interest was spurred by the recent misinformation epidemic that has been consuming our communities in this new technologically advanced informational landscape. We will address the scientific advances on understanding beliefs by answering the following questions: What factors facilitate the endorsement of conspiracy theories? How do people influence each other's beliefs? How do beliefs propagate through social networks? How do people change their beliefs? We will use a multidisciplinary framework to understand the endorsement and propagation of true and false beliefs through social networks.

IV. GOALS: This course is designed for advanced undergraduate students who have an interest in exploring the formation of individual and collective beliefs. In addressing such a complex phenomenon, one cannot afford to reduce one's perspective to a single discipline. Rather, the exploration has to incorporate multiple threads from different perspectives and force a trans-disciplinary discourse. This course is such an attempt.

By the end of the course, you will:

- 1) become familiar with experimental paradigms and methodologies from different disciplines (psychology, sociology, political science)
- 2) be able to understand limitations of the different disciplinary approaches to belief formation and get a better sense of interdisciplinary "bridges"
- 3) develop a problem-focused perspective, which will serve you well at applying your knowledge and skills to understanding complex dynamics around the formation of individual and collective beliefs.

V. INSTRUCTIONAL APPROACH:

Each class period will include a mix of lecture highlighting and expanding on key points from the readings and answering any questions about them, class discussion, and active learning exercises in which we examine and apply the ideas introduced in the readings.

VI. GRADING: Grading is distributed as follows:

- 1) Class participation: 30%
 - 15% reading summaries due by noon of the day the course is scheduled
 - 15% class interventions
- 2) Midterm presentation: 30%
- 3) Final paper: 40%

Note: Documents with guidelines for each of grading sections are uploaded on Canvas.

VII. THE READING LIST: Discussion topics and representative reading assignments are provided in what follows (all readings are posted on Canvas). Each week, all students will have to read the articles under “Readings.” For some weeks, we will DEBATE a controversial topic, for some other weeks, we will have a RESEARCH LAB. When a debate is scheduled, we’ll arbitrarily split the class in half, and you will only have to read the articles assigned for the perspective that you’re defending. When a research lab is scheduled, all students will have to do the readings under “Research lab” (in addition to those under “Readings”).

Importantly, before each class you will submit reflections on that day’s readings on Canvas (by noon the day of the class). There will be 9 weeks of reflections. Note that you can skip one day of reflections without penalty.

VIII. THE RESEARCH PARTICIPATION ASSIGNMENT

Students in this course must complete a Research Participation Assignment. There are two options: students may participate in psychology experiments for course credit or may opt to complete the alternative research writing assignment.

Four hours of experimental participation are assigned to any student in this course who has not already completed 8 hours of participation for other psychology courses in the past. Students will have access to sign up for experiments beginning September 16, 2021 and must complete the required number of sessions by the last day of Reading Period in order to pass the course. To be clear: experimental participation must be completed satisfactorily by December 14, 2021. Please refer to the Research Participation Assignment document which will be posted on Canvas for complete details and instructions.

This assignment reflects the psychology department’s belief that experiencing research as a participant adds greatly to a student’s understanding of course material, particularly to the student’s understanding of how psychologists study behavior. Your participation not only furthers your education about the nature of psychological research; it also makes a substantial, critical contribution to psychological research at Princeton and to science in general. As an alternative to research participation, students may complete the research writing assignment. Each paper is worth .5hrs of credit. Eight papers would be required if you choose not to participate in any experiments. Please see the Research Assignment document posted on Canvas for further details.

Completing the Research Participation Assignment is a requirement for passing the course. All questions pertaining to this assignment should be directed to RoseMarie Stevenson (rosemari@princeton.edu).

Week 1 (September 1)

Topic: *Introductory: the psychology of beliefs*

Readings:

Shermer, M. (2011). *The believing brain. From ghosts and gods to politics and conspiracies*. Times Books, Henry Holt and Company New York. Prologue & Part 1

Wilson, T. D., & Nisbett, R. E. (1978). The Accuracy of Verbal Reports about the Effects of Stimuli on Evaluations and Behavior. *Social Psychology*, 41, 118-131.

Week 2 (September 8)

Topic: *(When) Do beliefs impact behavior?*

Readings:

Paluck, E.L. (2009). Reducing intergroup prejudice and conflict using the media: A field experiment in Rwanda. An empirical study looking at the impact of media in changing beliefs and norms in post-genocide Rwanda.

Stephens, N. M., Townsend, S. S. M., Hamedani, M. G., Destin, M., & Manzo, V. (2015). A difference-education intervention equips first-generation college students to thrive in the face of stressful college situations. *Psychological Science*, 26, 1556-1566.

Crum A.J. & Langer E.J. (2007). Mind-set matters: exercise and the placebo effect. *Psychological Science*; 18(2):165-71.

Context:

- Bruce Grierson. What if age is nothing but a mindset? *New York Times*, 2014.

Debate: *Placebo: subjective vs. objective?*

Group 1 (last names starting with A-J): Wechsler M.E. et al. (2011). Active albuterol or placebo, sham acupuncture, or no intervention in asthma. *New England Journal of Medicine*, 14;365(2):119–26.

Group 2 (last names starting with K-Z): Kemeny, M.E. et al. (2007). Placebo response in asthma: a robust and objective phenomenon. *The Journal of Allergy and Clinical Immunology*, 119 (6), 1375-1381.

Week 3 (September 15)

Topic: *Extreme forms of beliefs: Sacred values*

Readings:

Ledgerwood, A., Liviatan, I., & Carnevale, P. J. (2007). Group identity completion and the symbolic value of property. In valuing property, people consider its relevance for the group.

Ginges, J., Atran, A., Medin, D., & Shikaki, K. (2007). Sacred bounds on rational resolution of violent political conflict. An empirical study on Palestinian refugees and Israeli settlers looking at how material-sacred tradeoffs can backfire in negotiations.

Atran, S., Axelrod, R., & Davis, R. (2007). Sacred barriers to conflict resolution. Brief piece interviewing leaders involved in intractable conflicts about sacred values.

Context:

- Scott Atran & Robert Axelrod. [Why we talk to terrorists?](#) *New York Times*, 2010

Research lab: *How beliefs might become sacred?*

Sheikh, H., Ginges, J., Coman, A., & Atran, S. (2012). Religion, group threat, and sacred values. *Judgement and Decision Making*, 7(2), 110-118.

Week 4 (September 22)

Topic: *When beliefs go awry: conspiracy theories (GUEST SPEAKER: Sander van der Linden, Ph.D., University of Cambridge)*

Readings:

Lewandowsky S., Ecker U.K.H., Seifert C.M., Schwarz N., & Cook J. (2012). Misinformation and Its Correction: Continued Influence and Successful Debiasing. *Psychological Science in the Public Interest*, 13(3):106-131.

Graeupner, D., & Coman, A. (2017). The dark side of meaning-making: how social exclusion leads to superstitious thinking. *Journal of Experimental Social Psychology*, 69, 218-222.

Context:

- Patricia Cohen. [Italian praised for saving Jews is now seen as a collaborator.](#) *New York Times*, 2013
- John Cook. [Plandemic and the seven traits of conspiratorial thinking.](#) *Youtube video*, 2020

Research lab: How would you fight conspiracy theories? (Sander van der Linden)

Maertens, R., Roozenbeek, J., Basol, M., & van der Linden, S. (2021). Long-term effectiveness of inoculation against misinformation: Three longitudinal experiments. *Journal of Experimental Psychology: Applied*, 27(1), 1–16.

Launch: Propagation exercise

Week 5 (September 29)

Topic: *Bottom-up processes of belief formation and maintenance: how beliefs spread and become collectively shared*

Readings:

Harber, K.D. & Cohen, D.J. (2005). The Emotional Broadcaster theory of social sharing. This article traces the social sharing that occurred after a group of students visited a morgue.

Barrett, J., and Nyhof, M. (2001). Spreading of non-natural concepts. A series of experiments looking at the propagation of counter-intuitive concepts in conversations.

Brady, W. J., Wills, J. A., Jost, J. T., Tucker, J. A., & Van Bavel, J. J. (2017). Emotion shapes the diffusion of moralized content in social networks. *Proceedings of the National Academy of Sciences of the United States of America*, 114(28), 7313–7318.

Exercise: Memetics: how to spread ideas? Design techniques to make beliefs spread!

Gladwell, M. (2000). The tipping point. How little things can make a big difference. (Chapters 1: The three rules of epidemics). This is an easy-to-read popular book on large-scale dynamics.

Week 6 (October 6)

Topic: *Top-down processes of belief formation and maintenance. (GUEST SPEAKER: Mark Brandt, Ph.D., Michigan State University)*

Readings:

Pariser, E. (2011). The Filter Bubble (Chapter 2: The User is the content). The book claims that with advancements in technology (e.g., algorithms developed by Google, Facebook), a personalized internet is created, which, in his opinion, will lead to the fragmentation of society.

Posner, D. (2004). The political salience of cultural difference: Why Chewas and Tumbukas are Allies in Zambia and Adversaries in Malawi. An empirical investigation of a social construction of identity perspective.

Michele J. Gelfand et al. (2011). Differences Between Tight and Loose Cultures: A 33-Nation Study. This study shows how ecological and historical threats shape culture and influence the degree to which norms are enforced.

Context:

- Lynne Duke. [The word at war. Propaganda? Nah, Here's the Scoop, Say the Guys Who Planted Stories in Iraqi Papers](#), *Washington Post*, 2006

Research lab: Different moralities? (Mark Brandt)

Turner-Zwinkels, F. M., Sibley, C. G., Johnson, B. B., & Brandt, M. J. (in press). Conservatives moral foundations are more densely connected than liberals' moral foundations. *Personality and Social Psychology Bulletin*.

Discuss: Midterm presentation

Week 7 (October 13)

<p>Topic: Midterm presentations: <i>Map a belief system</i></p>
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Week 8 (October 20)

FALL BREAK (NO CLASS)

Week 9 (October 27)

Topic: *Measuring collective beliefs using network analysis (A workshop in social network analysis)*

Readings:

Borgatti, S. (2009). Network analysis in the social sciences. This review introduces a few fundamental concepts in network science and presents how different disciplines developed an interest in social network analysis.

Gladwell, M. (2000). The tipping point. (Chapter 2: The law of the few: connectors, mavens and salesmen). An easy to read chapter on the role that node (=people) attributes play in the dynamics of social networks.

Research lab: The impact of social networks in our lives.

Bond et al. (2012). A 61-million-experiment in social influence and political mobilization. This the largest empirical study ever conducted; it shows how different messaging strategies have different consequences in terms of voting behavior. We'll also discuss the ethics of this type of experimentation.

Week 10 (November 3)

Topic: *Psychological strategies to change beliefs I (GUEST SPEAKER: Madalina Vlasceanu, Ph.D., NYU)*

Readings:

Vlasceanu, A., Coman, A. (2018). Mnemonic accessibility affects statement believability: the effect of listening to others selectively practicing beliefs. *Cognition, 180, 238-245.*

Vlasceanu, M, Morais, M., & Coman, A. (2021). The Effect of Prediction Error on Belief Update Across the Political Spectrum. *Psychological Science, 32(6):916-933.*

Context:

- Laura Spinney (2017). [The shared past that wasn't](#). *Nature*, 543, 168-170.

Exercise: How to change collective beliefs? (Madalina Vlasceanu)

Vlasceanu, M., Morais, M., Duker, A., **Coman, A.** (2020). The synchronization of collective beliefs: from dyadic interactions to network convergence. *Journal of Experimental Psychology: Applied*, 26(3):453-464.

Week 11 (November 10)

Topic: *Psychological strategies to change beliefs II (GUEST SPEAKER: Nadia Brashier, Ph.D., Purdue University)*

Readings:

Brashier N.M., Pennycook G., Berinsky A.J., Rand D.G. (2021). Timing matters when correcting fake news. *Proceedings of the National Academy of Sciences*, 118(5).

Pennycook, G., Epstein, Z., Mosleh, M., Arechar, A.A., Eckles, D., and Rand, D.G. (2021). Shifting attention to accuracy can reduce misinformation online. *Nature*.

Guess, A. et al. (2020). A digital media literacy intervention increases discernment between mainstream and false news in the United States and India. *Proceedings of the National Academy of Sciences* 117(27): 15536–15545.

Context:

- Jack Nicas. [Can YouTube Quiet Its Conspiracy Theorists?](#) New York Times, 2020
- Africa Check, Chequeado, and Full Fact. [Fact checking doesn't work \(the way you think it does\)](#). Blog, 2019.

Debate: Do corrections backfire? (Nadia Brashier)

Group 1 (last names starting with A-J): Nyhan, B., Reifler, J. When Corrections Fail: The Persistence of Political Misperceptions. *Political Behavior*, 32, 303–330.

Group 1 (last names starting with K-Z): Guess, A., Coppock, A. (2020). Does Counter-Attitudinal Information Cause Backlash? Results from Three Large Survey Experiments. *British Journal of Political Science*, 50, 1497–1515.

Week 12 (November 17)

Topic: VOTE FOR TOPIC

Week 13 (November 24)

NO CLASS-THANKSGIVING BREAK

Week 14 (December 1)

Bringing it all together