

Philosophy of Science

Wintersemester 2021

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Vienna University of Economics and Business

Course Description

Alternative facts. Fake news. Derogatory labels like these are meant to call into question the validity of one's empirical evidence or the interpretation one attaches to that evidence, or both. These labels entered the popular discourse with Trump and other populists, and are thus tools wielded to discredit political opponents. However, scientists have contemplated the logic and empirical methods of their disciplines at least as far back as the 17th century when Descartes proposed that "I think, therefore I am." This course provides an overview of philosophical questions concerning how we can know what we know (or don't know) as they apply to the field of political science, economics, and business.

Course Objectives and Learning Outcomes

This course is designed to provide practical advice on how to improve doctoral dissertations. Specifically, how to ensure that your work is science, rather than pseudoscience? How to avoid logical fallacies when making your argument? How to make sure that your explanation is a "good" explanation? What methodological approach is likely appropriate for your topic? How to ensure that your theory, hypotheses, and methodological approach meet (what) scientific standards?

Times and Location

- Di, 12.10.2021, 13:00-15:30 Uhr, D2.0.392
- Di, 19.10.2021, 13:00-15:30 Uhr, D2.0.392
- Di, 02.11.2021, 13:00-15:30 Uhr, D2.0.392
- Di, 09.11.2021, 13:00-15:30 Uhr, D2.0.392
- Di, 16.11.2021, 13:00-15:30 Uhr, D2.0.392
- Di, 23.11.2021, 13:00-15:30 Uhr, D2.0.392
- Di, 30.11.2021, 13:00-15:30 Uhr, D2.0.392
- Di, 07.12.2021, 13:00-15:30 Uhr, D2.0.392
- Di, 14.12.2021, 13:00-15:30 Uhr, D2.0.392

Assignments

- **Active participation in class and contributions to the discussion (20%)** Each class will feature both an interactive lecture as well as an in-class reflective exercises. Here, students will work in small teams to apply whatever concept or insight we discussed to their own dissertations. Students' active participation is expected.
- **Response Paper / Presentation (40%)**: Each student will write a response paper and give a presentation summarizing her/his response paper. Students will be assigned to a particular week for their paper/presentation. Moreover, students will be given a specific set of questions relating to that week's readings. Their task is to apply the insights of these readings to their dissertation. In other words, you are required to reflect on your own work, and how the ideas in the readings have motivated you to make changes to your theory, approach, methodology, etc. The response paper (2500 words max) should be thoughtful and detailed. The presentation should be directed at your colleagues (not the instructor). I will evaluate your presentations *inter alia* according to how well they explain your dissertation and your reflections to class. In other words, do not tailor the presentation to me, but rather try to make sure everyone in class can follow and understand what you are presenting. The presentations will be held using slides that students prepare in advance and which we will project for everyone to follow during the presentation. The response paper and the slides have to be submitted at least 24 hours before the presentation.
- **Final Assessment (40%)** Students will need to demonstrate their mastery of the material in the context of a final exam.

Dates, Topics, and Readings

Week 1 — Introduction

- (No readings)

Week 2 — Objectivity

Required Readings

- Rudner, Richard. 1953. The Scientist Qua Scientist Makes Value Judgments. *Philosophy of Science* 20 (1):1–6.
- Kuhn, Thomas. 1977. Objectivity, Value Judgment, and Theory Choice. In *The Essential Tension*. Chicago: University of Chicago Press.
- Weber, Max. 1949. "Objectivity" in Social Science and Social Policy. In *The Methodology of the Social Sciences*. New York: Free Press. Original edition, 1904.

Recommended Readings

- Hempel, Carl. 1983. Valuation and Objectivity in Science. In *Physics, Philosophy, and Psychoanalysis*, edited by R. Cohen and L. Laudén. Dordrecht: Reidel.
- Wright, Tommy. 1998. Sampling and Census 2000: The Concepts. *American Scientist* 83 (3):245–53.
- Lacey, Hugh. 1999. *Is Science Value Free?* London: Routledge.

- Crasnow, Sharon. 2006. Feminist Contributions to Anthropology and Sociology. In *Philosophy of Anthropology and Sociology*, edited by S. Turner and M. Risjord. Amsterdam: Elsevier.

Week 3 — Theories

Required Readings

- Schutz, Alfred. 1954. Concept and Theory Formation in the Social Sciences. *Journal of Philosophy* 51 (9):257–73.
- Geertz, Clifford. 1973b. Thick Description: Toward an Interpretive Theory of Culture. In *The Interpretation of Cultures*. New York: Basic Books.
- Hacking, Ian. 1995. The Looping Effects of Human Kinds. In *Causal Cognition: A Multi-Disciplinary Debate*, edited by D. Sperber, D. Premack, and A.J. Premack. New York: Oxford University Press.

Recommended Readings

- Mill, John Stuart. 1987. On the Logic of the Moral Sciences. Peru, IL: Open Court. Originally published in 1872 as Book VI of *A System of Logic*.
- Weber, Max. 1949. “Objectivity” in Social Science and Social Policy. In *The Methodology of the Social Sciences*. New York: Free Press. Original edition, 1904.
- Taylor, Charles. 1971. Interpretation and the Sciences of Man. *Review of Metaphysics* 25:1–51.

Week 4 — Rationality

Required Readings

- Cox, Gary W. 1999. The Empirical Content of Rational Choice Theory: A Reply to Green and Shapiro. *Journal of Theoretical Politics* 11 (2):147–69.
- Tversky, Amos, and Daniel Kahneman. 1974. Judgment Under Uncertainty: Heuristics and Biases. *Science* 185 (4157):1124–31.
- Henrich, Joseph, et al. 2005. “Economic Man” in Cross-Cultural Perspective: Behavioral Experiments in 15 Small-Scale Societies. *Behavioral and Brain Sciences* 28 (6):795–855.

Recommended Readings

- Anscombe, G.E.M. 1963. *Intention*. 2nd ed. Ithaca: Cornell University Press.
- Hempel, Carl. 1942. The Function of General Laws in History. *Journal of Philosophy* 39:35–48.
- Ross, Don. 2011a. Game Theory. In *The Stanford Encyclopedia of Philosophy* (Winter 2012 Edition), edited by E. N. Zalta. <http://plato.stanford.edu/archives/win2012/entries/>
- Green, Donald, and Ian Shapiro. 1995. *Pathologies of Rational Choice Theory*. New Haven, CT: Yale University Press.
- Sen, Amartya K. 1977. Rational Fools: A Critique of the Behavioral Foundations of Economic Theory. *Philosophy and Public Affairs* 6 (4):317–44.

Week 5 — Society vs. Individuals

Required Readings

- Durkheim, Emile. 1938. *The Rules of the Sociological Method*. Translated by S. Solovay and J. Mueller. New York: Free Press. Original edition, 1895. Ch.1
- Mandelbaum, Maurice. 1955. Societal Facts. *British Journal of Sociology* 6:305–17.
- Kincaid, Harold. 2007. Functional Explanation and Evolutionary Social Science. In *Philosophy of Sociology and Anthropology*, edited by S. Turner and M. Risjord. Dordrecht: Elsevier.

Recommended Readings

- Watkins, J. W. N. 1953. Ideal Types and Historical Explanation. In *Readings in the Philosophy of Science*, edited by H. Feigl and M. Brodbeck. New York: Appleton Century Crofts.
- Little, Daniel. 1991. *Varieties of Social Explanation*. Boulder, CO: Westview Press.
- Little, Daniel. 2009. The Heterogenous Social: New Thinking About the Foundations of the Social Sciences. In *Philosophy of the Social Sciences: Philosophical Theory and Scientific Practice*, edited by C. Mantzavinos. Cambridge: Cambridge University Press.
- Elster, Jon. 2007. *Explaining Social Behavior: More Nuts and Bolts for the Social Sciences*. Cambridge: Cambridge University Press.

Week 6 — Collection Action

Required Readings

- Sugden, Robert. 2000. Team Preferences. *Economics and Philosophy* 16:175–204.
- Schmid, Hans Bernhard. 2003. Can Brains in Vats Think as a Team? *Philosophical Explorations: An International Journal for the Philosophy of Mind and Action* 6 (3):201–17.
- Pettit, Philip, and David P. Schweikard. 2006. Joint Actions and Group Agents. *Philosophy of the Social Sciences* 36 (1):18–39.

Recommended Readings

- Schweikard, David P., and Hans Bernhard Schmid. 2013. Collective Intentionality. In *The Stanford Encyclopedia of Philosophy* (Summer 2013 Edition), edited by E.N. Zalta.
<http://plato.stanford.edu/archives/sum2013/entries/collective-intentionality/>
- Searle, John. 1990. Collective Intentions and Actions. In *Intentions in Communication*, edited by P.R. Cohen and J.L. Morgan. Cambridge, MA: MIT Press.

Week 7 — Free will vs. Social Laws

Required Readings

- Kincaid, Harold. 1990. Defending Laws in the Social Sciences. *Philosophy of the Social Sciences* 20 (1):56–83.
- Hedström, Peter, and Petri Ylikoski. 2010. Causal Mechanisms in the Social Sciences. *Annual Review of Sociology* 36 (49–67).
- Weber, Eric. 2007. Social Mechanisms, Causal Inference, and the Policy Relevance of Social Science. *Philosophy of the Social Sciences* 37 (3):348–59.

Recommended Readings

- Steel, Daniel. 2006. Methodological Individualism, Explanation, and Invariance. *Philosophy of the Social Sciences* 36 (4):440–63.
- Fay, Brian. 1983. General Laws and Explaining Human Behavior. In *Changing Social Science: Critical Theory and Other Critical Perspectives*, edited by D.R.J. Sabia and J. Wallulis. Albany: State University of New York Press.
- Popper, Karl. 1965. Prediction and Prophecy in the Social Sciences. In *Conjectures and Refutations: The Growth of Scientific Knowledge*. New York: Harper Torchbooks.
- Groff, Ruth. 2011. Getting Past Hume in the Philosophy of Social Science. In *Causality in the Sciences*, edited by P. M. Illari, F. Russo and J. Williamson. Oxford: Oxford University Press.
- Varela, Charles R., and Rom Harré. 1996. Conflicting Varieties of Realism: Causal Powers and the Problems of Social Structure. *Journal for The Theory of Social Behavior* 26 (3):313–25.
- Elster, Jon. 1998. A Plea for Mechanisms. In *Social Mechanisms: An Analytical Approach to Social Theory*, edited by P. Hedström and R. Swedberg. Cambridge: Cambridge University Press.

Week 8 — Finding Evidence

Required Readings

- Scheines, Richard. 2005. The Similarity of Causal Inference in Experimental and Non-Experimental Studies. *Philosophy of Science* 72 (5):927–40.
- Flyvbjerg, Bent. 2006. Five Misunderstandings about Case-Study Research. *Qualitative Inquiry* 12 (2):219–45.
- Mayo, Deborah. 2008. Some Methodological Issues in Experimental Economics. *Philosophy of Science* 75 (5):633–45.

Recommended Readings

- Woodward, James. 2007. Causal Models in the Social Sciences. In *Philosophy of Anthropology and Sociology*, edited by S. Turner and M. Risjord. Amsterdam: Elsevier.
- Steel, Daniel. 2011. Causality, Causal Models, and Social Mechanisms. In *The SAGE Handbook of the Philosophy of the Social Sciences*, edited by I.C. Jarvie and J. Zamora-Bonilla. Los Angeles: SAGE Publications.
- Crasnow, Sharon. 2012. The Role of Case Study Research in Political Science: Evidence for Causal Chains. *Philosophy of Science* 79 (5):655–66.
- Cartwright, Nancy. 2010. What are Randomized Controlled Trials Good For? *Philosophical Studies* 147 (1):59–70.

Week 9 — Final Exam

- (No readings)

Course Policies

What I expect from you

- **Willingness to work:** As a rule, one ECTS corresponds to three hours of scientific work per week (including lectures, laboratories, recitations, discussions, fieldwork, studies, etc.), averaged over the semester. In other words, students will have to invest time and effort, otherwise the learning experience and grades may not meet your expectations.
- **Etiquette:** You are expected to read the assigned readings before each class period. The lecture and activities will not present the contents of the readings again, but will build on it. Your active, informed and civil participation in discussion and class activities is expected.
- **Obligations to other students:** You will be assigned to a team of several students who will work together throughout the semester. Each team will have the opportunity to agree on how the teamwork should happen. You are expected to work with your teammates in the manner that all team members agreed upon.

What you can expect from the instructor

- I offer a learning environment that challenges you in order to provide opportunities for growth. I will be prepared to the best of my abilities.
- I encourage you to explore your own ideas in response to the assigned tasks. I will be open-minded in responding to your ideas and suggestions. I will offer constructive feedback.
- I am open to constructive feedback from you on my performance. If you have ideas or suggestions, please do not hesitate to discuss them with me. I am committed to make this the best possible classroom experience.

Course Atmosphere We are jointly responsible for maintaining a constructive learning environment in the classroom. Students whose behavior is disruptive either to me or to other students will be asked to refrain from such behavior or, in severe cases, to leave the classroom. Mutual respect is expected of everyone in the classroom, and personal attacks will not be tolerated. Please contact me if you have any concerns in this regard.

Academic Misconduct Students are expected to do their own work. Engagement in any form of Academic Dishonesty (plagiarism, use of unauthorized aids, consultation with other students, etc.) will have serious consequences for the course grade. In addition, additional sanctions from the university are to be expected. See §51, Paragraph 2, Items 31 and 32 Universitätsgesetz.

Sexual Harassment I do not tolerate sexual harassment, sexist behavior or bullying. The Hochschulrichtlinie (university guidelines) prohibits sexual harassment according to iSd §8 Bundes-Gleichbehandlungsgesetz (Federal Equal Treatment Act). This is a serious offense and I want to make clear that I will be an ally to anyone affected. In addition, I recommend the conflict and bullying advisor program at WU. If needed, you can use the services of a counselor through this program.¹ WU settles accounts with these counselor on a trust basis, that is, the counselor does not provide any data about the person seeking counseling to WU. Nonetheless, WU is paying for the first five counseling hours.

¹More information here: <https://www.wu.ac.at/universitaet/organisation/interessensvertretungen/arbeitskreis-fuer-gleichbehandlungsfragen/harassment>

Support for students with disabilities It is important to me to ensure equal opportunities for students with and without disabilities and to pay special attention to the needs of students with disabilities. If necessary, you are strongly encouraged to contact me so as to ensure the best possible access to the course. It is important to me that everyone who would like to take part in this course is not prevented from doing. Please feel free to contact me about this. I also recommend the mentoring program BeAble. This program is aimed at students with physical disabilities, chronic illnesses, or a learning disability. Those affected are accompanied and supported by colleagues from the more advanced semesters.²

Statement regarding diversity I strongly believe that diversity is an asset rather than a liability. For one, in a globalized world you will be exposed to people who are different from you. Therefore, it is necessary to recognize that people who are different in almost all cases bring something valuable to the table: Experiences that you can learn from, insights that were not apparent to you, skills that you do not have, or knowledge that you can benefit from. It is my intention to create a learning environment in this class that allows everyone to share their unique strengths. This is not only my personal belief. After all, research shows that the best work is usually produced by groups that combine the different comparative advantages of their group members. I therefore emphasize that I will welcome anyone to my class, regardless of your sexual orientation, religious observances, political orientation, physical characteristics, cultural background, nationality, or any other characteristic. I recognize that I myself am not perfect, but I promise you to make every effort. If you have any concerns with respect to your acceptance in the classroom I strongly encourage you to talk with me.

²More information available here <https://www.wu.ac.at/studierende/mein-studium/bachelorguide/foerderprogramme/beable-ungehindert-studieren/>