Epistemology and Philosophy of the Social Sciences

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Are social sciences real sciences? What defines and warrants their scientific status? What are the categories structuring those disciplines, and where do they come from? Should they be based in the methodology of the “hard” sciences, like physics, or should they be autonomously grounded?

In this course, we will philosophically investigate the specificity of the social sciences with respect to the natural sciences. In order to do so, we will centrally discuss the question of whether the divide (or lack thereof) between the two is methodological, concerning the scientific methods deployed in each case.

Answering this question requires interrogating how knowledge is produced and the conditions under which it can be legitimized. By using Hume's classical epistemological investigation of the validity of inductive inferences as a starting point, we will explore a spectrum of issues (and stances that can be taken in response to them) in contemporary philosophy of science — from the question of “real” versus “constructed” empirical knowledge and the status of “fact” and “causality” to the possibility of prediction. Particular attention will be granted both to the historical and political dimensions of scientific practices and theories.

Learning objectives

- Understand philosophical notions that bear relevance to social scientific inquiry, such as objectivity, historicity, realism, constructivism and probability.

- Develop an ability to identify epistemological issues, such as the problem of induction, that affect all disciplines of the social sciences.

- Start thinking critically about how scientific knowledge is produced and accumulated, and how one might contribute to it in the future.
Synopsis

Part 1 of the course (Sessions 1–6) focuses on the philosophy of the natural sciences as well as on issues of general epistemology, such as the definitions of scientific and empirical knowledge, scientific theories and causal laws. In this first part of the course, we will discuss the drift towards unification of the sciences (methodological monism) in both the neopositivist movement of the first half of the twentieth century and its later critics.

Part 2 of the course (Sessions 7–12) focuses on the philosophy of the social sciences and the ways the organization of these fields can be seen as underpinned by a “disunification drift” exemplified by the existence of specific social kinds, as fundamentally distinct from natural ones. Moving from this background, we will conclude by discussing both the political presuppositions and implications of science.

Assessments

The course is made of lectures and tutorials, plus two 2-hour exams, one mid-term and one final (30% and 40% of the overall grade, respectively).

The mid-term exam will focus primarily on the epistemological concepts and arguments discussed in the lectures and readings of the first part of the course (Sessions 1–6), while the final exam will cover the entire course (Sessions 1–12).

The tutorials will also include short quizzes on the main approaches and concepts of the course (accounting in total for 30% of the overall grade).

Readings

From both a consumer’s and producer’s perspective, social science is first and foremost a text-based enterprise—working with original texts is therefore of the essence. Some of the writings by social scientists and philosophers of science are difficult to get, but it is imperative that you become acquainted with them. To that effect, a reader with all the texts discussed during lectures and tutorials will be distributed early in the semester.

It is, of course, still helpful to also read handbooks on the side. Apart from the specific chapters assigned as required readings, the handbooks on the next page are optional readings for this purpose. The handbooks differ on specific questions, and none of them provides a completely objective introduction or overview, but all are useful complements to the course material.
Handbooks


Chapters 4–10 of the book (pp. 38–148) cover induction (Vienna Circle), falsification (Popper), paradigms (Kuhn), research programmes (Lakatos) and methodological anarchism (Feyerabend).


The entire book is relevant, but Chapter 2 (pp. 51-85) in particular provides a very good, well-illustrated overview of the debate about the respective methods of the natural and the social sciences.


Chapters 2–6 (pp. 19–101) span over a good range of the authors and problems covered in the first part of the course, while later chapters cover recent debates.


A short book that shows how philosophy inspired the early development of the social sciences in France. The first three chapters (pp. 21–81), on how positivism, hermeneutics and phenomenology influenced French (and German) sociology, are particularly relevant for the first part of the course.


This short book provides an accessible overview of the history of the philosophy of science, considered in its relation to the history of science, from the end of the nineteenth century to the end of the twentieth century. Chapters 3-6 (pp. 35–87) are relevant for the second part of the course.

Websites

Useful websites for this course are the Internet Encyclopedia of Philosophy (iep.utm.edu) and the Stanford Encyclopedia of Philosophy (plato.stanford.edu).

Course structure and required readings

All readings listed below are compulsory unless otherwise noted. Both the lectures and the tutorials will assume that you have read the texts in advance of the lecture or tutorial session to which they are assigned.

French versions of some of the readings (Canguilhem and Foucault) will be distributed in digital format as a complement to the English versions found in the reader.

Lecture 1  What (Good) is Epistemology?

Lecture 2  The Problem of Induction

Lecture 3  Facts, Causality and Explanation


Lecture 4  Physicalism and the Unity of Science

Tutorial 2  Neurath (1931)

Lecture 5  Establishing Theories and Testing Hypotheses

Tutorial 3  Popper (1935)
Lecture 6  Historicizing Epistemology


— Midterm exam on ‘Part 1’ of the course —

Lecture 7  Understanding and Interpreting the Social World


Tutorial 5  Schütz (1954)

Lecture 8  Natural Life and Social Life


Tutorial 6  Canguilhem (1966)
Lecture 9  Natural Kinds and Human Kinds


Tutorial 7  Hacking (1995)

Lecture 10  Science Wars: Constructivism vs. Realism


Tutorial 8  Latour and Woolgar (1986)

Lecture 11  Politics of Truth


Lecture 12  From Unity to Plurality


— Final exam on the entire course —
Appendix. Selected German, Greek and Latin words

Terms are German unless noted otherwise. Some words for which the English translation is obvious, like Naturalismus or Physikalismus, have been omitted. Many thanks to Janis Grzybowski for proofreading.

**IMPORTANT – This appendix is provided for teaching purposes only, not as exam material. Some of its terms might get mentioned in the lectures, readings or tutorials, but there is no need to revise this list before exams, or to use it in exam answers, or even to read it in full.**

**Aufbau** – structure, also sometimes translated as ‘construction’ (or in French as constitution), as in Rudolf Carnap’s book *Der logische Aufbau der Welt* (*The Logical Structure of the World*), published in 1928.

**Cogito** (Latin) – ‘I think,’ as in René Descartes’ cogito ergo sum (‘I think, therefore I am’).

**De revolutionibus orbium coelestium** (Latin) – *On the Revolutions of the Celestial Spheres*, the title of Nicolaus Copernicus’ book on astronomy, published in 1543.

**Entwicklung** – evolution, as in *Entwicklungsgeschichte*, ‘evolutionary history.’

**Erkenntnis** – a form of intellectual inquiry, of intellectual discovery. See also **Wissen**.

**Erlebnis** – experience.

**Erklären/Verstehen** – the name of a philosophical controversy, involving Karl-Otto Apel and others, about whether science should try to explain (erklären; Erklärung: explanation) or to understand (verstehen) reality.

**Geist** – spirit or mind, as in *Zeitgeist*, the ‘spirit of the times’ (an expression most famously used by G. W. F. Hegel), or *Geisteswissenschaft*, ‘science of the spirit, of the mind,’ which was sometimes translated as ‘human science,’ as in Wilhelm Dilthey’s *Einleitung in die Geisteswissenschaften* (*Introduction to the Human Sciences*). See also **Methodenstreit**.

**Geschichte** – history.

**Historikerstreit** – literally, a ‘quarrel of historians’ (about the Holocaust) that occurred in West Germany in the late 1980s, following the publication of various texts by German historian Ernst Nolte.

**Kulturwissenschaft** – ‘science of culture,’ often used to mean ‘human sciences,’ and often used in opposition to **Naturwissenschaft**, the ‘science of nature.’ See **Methodenstreit**.

**Lebenswelt** – the ‘life-world,’ a phenomenological notion by Edmund Husserl.


**Methodenstreit** – literally, a ‘quarrel about method[s]’ that occurred in late 19th century Europe, during which German philosophers opposed positivists like Auguste Comte and John Stuart Mill by claiming that human society required studying its ‘spirit’ (Geist), ideas (Ideen) and culture (Kultur).
Modus ponens – a valid rule of logical inference that proceeds by affirming the antecedent (‘if P, then Q; P; therefore, Q’). Ponens means to affirm. The logical fallacy associated with modus ponens is affirming the consequent (‘Q; therefore, P’).

Modus tollens (Latin) – a valid rule of logical inference that proceeds by denying the consequent (‘if P, then Q; not Q; therefore, not P’). Tollens means to deny. The logical fallacy associated with modus tollens is denying the antecedent (‘not P; therefore, not Q’).

Novum Organum (Latin) – a treatise by Francis Bacon, the full title of which is Novum Organum Scientiarum (‘the new instrument of science’), which was published in 1620, and which is titled in reference to Aristotle’s Organon.

Organon (Greek) – instrument or organ, the title given to Aristotle’s works on logic by his followers, and of which copies started circulating around 50 BC.


Tractatus logico-philosophicus (Latin) – a book by Ludwig Wittgenstein, written in 1918, published in German as Logisch-Philosophische Abhandlung in 1921, and then published in English under its Latin title in 1922. Tractatus and Abhandlung both mean ‘treatise’ (in French: traité). Not to be confused with Baruch Spinoza’s Tractatus Theologico-Politicus.

Wertfreiheit – literally ‘value-freedom.’ See Wert.

Wissen – knowledge (French: connaissance, or more ambiguously, savoir).

Wissenschaft – science (in French: science, or more specifically, connaissance scientifique).

Verstehen – to understand, as in Max Weber’s Verstehende Soziologie, ‘interpretative sociology’ (in French: sociologie compréhensive or sociologie interprétative), a sociological approach that Weber developed by drawing on the work of his academic friends Wilhelm Dilthey and Georg Simmel. See also Erklärung/Verstehen and Methodenstreit.

Weltanschauung – worldview (literally: ‘a view of the world’), a concept often used with reference to its meaning in the works of Immanuel Kant and G. W. F. Hegel.

Wert – value(s), as in Max Weber’s Wertfreiheit – ‘value-freedom’, initially translated in English as ‘axiological neutrality’ (French: neutralité axiologique, or in simpler and equivalent terms, non-imposition des valeurs), or in Heinrich Rickert’s Wertbeziehung — ‘value-relevance,’ meaning ‘the relevance of values [to understand human society].’¹

Wissenschaftliche Weltauffassung. Der Wiener Kreis – The Scientific Conception of the World. The Vienna Circle, the manifesto by the group of the same name, which was signed by Hans Hahn, Otto Neurath and Rudolf Carnap, and published in 1928. The first part of the title is sometimes translated as Viewing the World Scientifically.


¹ Another very interesting use of Wert appears in Reininger’s “Unser Welbilt ist immer zugleich ein Wertbild” — “our image of the the world is always a display of values as well.” The quote shows up at p. 117 of the 1966 edition of George Canguilhem’s Le normal et le pathologique (The Normal and the Pathological): “notre image du monde est toujours aussi un tableau de valeurs.”