There are four questions that have shaped almost all explorations of the theoretical foundations of the social sciences. These questions involve: (a) the connection between individual experience and a general theory; (b) the role of individual comprehension and intent in human behavior; (c) the link between the individual and social collectives; and (d) the relationship between mathematics and the construction of theoretical systems.

The first question is shared with the philosophy of science generally in that individual experience (personal perception) must somehow give rise to general theories (knowledge shared with others). Although this question has been addressed in many different ways, the most fruitful approach involves the study of language as a means of constructing reality and communicating experience. The second question involves the relationship between structure (the frame within which individual action takes on meaning for other individuals) and agency (the ability of the individual to choose what meaning to communicate to other individuals). This question is, perhaps, the most important problem distinguishing the natural from the social sciences. The third question asks how explanations of individual behavior can be integrated with understandings of the ontological status of social collectives (such as the nation, a political party, the international economy, the family, and a religion). As in the natural sciences, a satisfactory answer would provide much of the basis for a unified theory. The last question asks how the language in which social science theories are communicated and understood is related to the statistical analyses in which data are presented and analyzed. This question is best addressed by understanding this relationship as the intersection of an interpretive and communicative system (language) and pure logic (the reduction of experience to well-bounded categories of data so as to enable the application of statistical analysis).

These four questions provide the backbone to this course and we will take them up in roughly that order. However, the philosophical and empirical problems that these questions address overlap quite a bit both in the abstract and in their treatment in the literature. As a result, we also both anticipate some of the later discussions as we proceed and backtrack from time to time as we reconsider issues raised in earlier sessions. Although there are better and worse ways of understanding the philosophical and empirical commitments that necessarily ground social science practice, there is no single, correct foundation to the social sciences. This course is only intended to survey the field in such a way that the student better understands just how he or she is constructing reality in their professional research and writing.

Course Requirements:

Because this course is designed as a general survey of the vast literature on the philosophy of social science, a research paper will not be required. Instead, seventy-five percent of the course grade will be based on a take-home final conducted as if it were a small version of a doctoral qualifying examination. An additional ten percent will be allocated according to the amount and quality of individual contributions to class discussion. The remainder of the course requirements will be satisfied in the form of weekly papers on the readings (described below).
However, a student can choose to prepare a research paper of (to be negotiated) length in place of the take-home exam. This research paper should be intended for presentation in a professional forum outside of Cornell and/or publication in a professional journal.

Weekly paper assignments:

There will be weekly paper assignments which will be due by midnight on the Saturday before the class session on Tuesday. These papers should address five primary questions concerning that week’s reading:

1) In a few sentences, briefly summarize the central argument of each of the readings.

2) At what level and in what way can these arguments be reconciled? By “reconciled,” I mean integrated into a unified theoretical framework. (If there is only one reading, you should compare it with one of the readings in a prior week.)

3) At what level and in what way do these arguments diverge? By “diverge,” I mean where do they begin to rely on different assumptions with respect to, for example, the direction of causality, the relationship between perception and language, and/or how a framework for understanding individual behavior can underpin the theoretical conception of social collectives (such as the state, the family, or religion).

4) Which of the theoretical frameworks you have now described is most compatible with your own approach to the study of human behavior? Why? You may not have adopted a theoretical approach yet. If that is the case, just explain which of the readings is most intuitively appealing to you.

5) What question would you like to pose to the class? For example, were there passages in the text that seemed particularly ambiguous, confusing, or controversial?

These weekly papers should not be more than four hundred words (single-spaced, two pages at most). You can, of course, write more than that but you will also have an opportunity to bring up things in class discussion as well.

Final exam:

The final exam will have seven questions divided into two parts. Students will answer two questions from each part. The exam will last seventy-two hours with the expectation that students will write for no more than twenty-four hours (roughly the format of most doctoral examinations in the Government Department). There is no minimum or maximum page limit on this exam. Students are expected to draw upon all the readings for the course in answering these questions but are not permitted to bring outside readings into their discussions.
Part I
The Theoretical Foundations of the Natural and Social Sciences

First Session (February 9): Introduction.


Recommended:


Samir Okasha, Philosophy of Science: a very short introduction (New York: Oxford University Press, 2002).

Second Session (February 16): The Common Foundation of the Natural and Social Sciences.

One of the most basic issues in the social sciences concerns the extent to which research practices and theory construction in the natural sciences should guide the study of human behavior. Although there are exceptions, most scholars would not maintain that the units and events studied by social scientists are "just like" those analyzed by natural scientists. Some social scientists would, in fact, reject the notion that the natural sciences and the social sciences share anything at all in terms of their respective orientations toward physical and social reality. There is also a somewhat muddled middle ground in this contentious terrain in which much of what the philosophy of science has produced by way of prescribing and understanding scientific practice is considered at least metaphorically useful in the social sciences but that the study of human behavior nonetheless raises issues and problems that must be separately addressed through different logics and understandings. These issues will resurface throughout the semester.

One of terrains in which these issues are both most contentious and unsettled is linguistics. Noam Chomsky, for example, seeks universal structure and principles (rules) through the study of language. Genetically determined predispositions play a central role in his theory of language, both its initial acquisition and its universal "deep structure." His approach is most akin to the natural sciences. At the other end is a more historical approach to language that emphasizes incremental change and the diversity of trajectories that languages have taken over time. Physiology plays a role in this interpretive framework but only in the determination of the range of sounds that humans may utter. Somewhere in the middle is a somewhat eclectic combination of the genetic and historical approaches that emphasizes the intertwined importance of biological and social evolution.
How would you design investigations within the set of assumptions that distinguish each of these frameworks? How would you design investigations that might enable you to select one of these frameworks as superior to the others? And, perhaps most importantly, can they be integrated in such a way that we might have a "unified" theory of linguistics or, alternatively, are they destined to go their own way forever (or at least the foreseeable future)?

**Required:**


**Recommended:**


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**Third Session (February 23): Logical Positivism.**

Language is again the central theme this week. However, our orientation will not be whether and how language might be the subject of scientific study but, instead, the relationship between language, on the one hand, and material and social reality, on the other. Our focus will be on logical positivism for which the central tenets are: (a) that we perceive the world through our senses; (b) that our sensory perception of the world and knowledge of that world are inextricably bound up with each other; and (c) that nothing exists apart from the world that we perceive (or can plausibly imagine that we could perceive if we had the necessary instruments and were otherwise appropriately situated). Given these tenets, science becomes a process through which the nature and principles governing the world are discovered and apprehended.

This perspective is almost irresistibly appealing for a number of reasons. For one thing, all of us organize most of our lives around its central tenets. We are, in daily practice, logical positivists. For another, most scientific research more or less presumes the same perspective (which is one of the reasons we call research results "findings," a term that implies discovery of something that already exists but was previously unknown to us). While there are serious problems with how logical positivists conceive of induction (the accumulation of perceptions and their transmutation into categories and statements) and deduction (the relationship between [a] those categories and statements and [b] the empirical world), these problems are more or less manageable in the natural sciences. As we shall see later in the course, they are less tractable in the social sciences if only because the individuals and societies we study often
subscribe to very different notions of empirical reality than do the social
scientists who study them. But that comes later...this week we are only
interested in the construction of a thoroughly logical and knowable world.
This construction, among other things, carries profound implications for the
way in which we use language to assert, recognize, and record facts about the
world and, thus, for the way in which language, evidence, and statistics are
(or should be) mutually translatable, each into the others.

We begin with very short extracts from the work of logical positivists
and a couple of their leading critics. Among other things, you should pay
close attention to their conception of the correspondence between
propositions (stated in language) and material reality (objects and their
relations to one another). In those readings, the construction of categories
and terms are often taken as "given" in the sense (a) that our senses
unambiguously present the "facts" of reality to us and (b) that our
categories and terms, when properly formed, unambiguously align with those
facts. Emile Durkheim gives us a similar understanding of categories and
terms. For him, a "social fact" such as "manners of acting, thinking and
feeling external to the individual" are as real as boulders in a streambed.
Religious belief, for example, can and must be the object of scientific study
even though we cannot locate it as a material object in empirical reality.
However, as Daston and Galison illustrate, the "givenness" of taxonomic
categories are, in fact, highly problematic. While they mostly focus on the
natural sciences, we might apply their typology of "truth-to-nature,
"objectivity," and "trained judgment" as distinct approaches to the doing of
social science research and, as such, alternative methods of constructing the
social world which we study.

Required:

Gerard Delanty and Piet Strydom, ed’s, Philosophies of Social Science:
The Classics and Contemporary Readings, (Maidenhead, Eng.: Open University

Peter Godfrey-Smith, Theory and Reality: An Introduction to the

the History of Political Science,” American Political Science Review 76:4

Steven Lukes, “Preface” and “Introduction” and Emile Durkheim, both
prefaces, introduction, and chapter 1, in Emile Durkheim, The Rules of

Lorraine Daston and Peter Galison, Objectivity (New York: Zone Books,
2007), pp. 3-53.

Recommended:


Emile Durkheim, The Division of Labor in Society (New York: Free Press,
2014).

W.V.O. Quine, “Two Dogmas of Empiricism,” Philosophical Review 60:1

W.V.O. Quine, Word and Object (Mansfield Centre, Conn.: Martino

Alan Richardson and Thomas Uebel, ed’s., The Cambridge Companion to

Bertrand Russell, Logic and Knowledge: Essays, 1901-1950 (New York:

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**Fourth Session (March 2): Kinship, Magic, and Culture.**

When reading *The Elementary Structures of Kinship*, you might note how the author: (1) posits the reproduction of the species through marriage as the irreducible foundation for empirical research; (2) relies on functional explanations of how marriage rules both enable alliances between groups and regulate internal stress within the group; and (3) presents the rules prohibiting incest as both negative restrictions on marriage possibility and the onset (universal opening) through which the group originally presses claims on organizing the social relations of its members. Levi-Strauss thus concludes that the "incest taboo" is a universal characteristic of all societies, although there is variation in the specific forms in which it is expressed. Evans-Pritchard demonstrates how a belief in "magic" can organize the personal relations and organization of much of a particular society. In what way, if any, can this belief be viewed as a universal characteristic of social behavior? Referring back to last week’s readings, would Durkheim classify the Azande belief in magic as a "social fact"? How would Geertz differ, if at all, with both Durkheim and Evans-Pritchard?

**Required:**


**Recommended:**


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**Fifth Session (March 16): The Nature of Hypothetical Propositions.**
All social science theories must be stated in the concepts, relations, and syntax that characterize language. For that reason alone, the foundation of any social science theory rests upon the word choices the theorist makes at the very beginning of theory construction. Each of those choices, even the most apparently banal, entails theoretical commitments that restrict or enable deductive implications and empirical application. By requiring that a theory be susceptible to empirical perception, logical positivism insists that a theory be empirically grounded. This insistence, in turn, presumes (sometimes explicitly provides for) a means of translating individual perception into theoretical concepts and back again. These translations necessarily involve language, both in terms of its underlying logical and structural possibilities and its common practice and usage.

Many scholars maintain that the purpose of constructing theoretical systems of social behavior is either to “understand” why people do what they do or, what often seems to amount to the same thing in practice, to “predict” what they will do in similar situations in the future. Here we want to focus on the relation between understanding and prediction. For example, by studying the rise of absolutist monarchies and their relations with urban commercial elites, we can better understand the transition from feudalism to capitalism in early modern Europe. But we cannot predict when and where future transitions in Europe might occur because the subcontinent no longer contains a feudal society. However, we might still contend that a better understanding of the transition would improve our ability to predict similarly massive transformations in the future. In order to do that we must construct categories utilizing generalizable properties that unambiguously distinguish between actors, institutions, and events that both apply in specific historical situations (e.g., early modern Europe) and yet logically correspond to ostensibly equivalent categories in very different historical situations (such as the modern world). Very similar challenges are associated with cross-cultural analysis within the same historical period.

When we do not believe that we can meet such challenges, we often say that we are setting “boundary or scope conditions” for a system. The question is whether we can set such conditions without knowing (and knowing rather exactly) what is on the other side of the boundary and thus outside the scope. If so, what we need to know is how human behavior can be explained on the other side of the boundary (an otherwise arbitrary declaration that it is “off-limits” should not be viewed as particularly satisfactory). We should also be aware that, at one extreme, we could always set boundary or scope conditions in such a way as to encompass only one, particular situation (which would thereby be designated as unique). At the other extreme, we might set no conditions on a theoretical system and thereby invite universal application both historically and cross-culturally. The construction of analytical units thus simultaneously and unavoidably implies (by extension and restriction) the definition of a “comparative field” (within which the theoretical expectations would be relevant).

This all returns us back to language because, as we have already recognized, we cannot perceive and interpret reality in the absence of language. Language, in turn, cannot organize reality without presuming both the construction of entities (such as individual people), assigning those entities properties (such as life and wills), and then inferring causal connections between those entities and social action (in the form, for example, of verbs such as winked, spoke, and prayed). Language, in other words, both contains and operates through a rudimentary social theory (actually, many partially developed, often imprecise, and sometimes inconsistent social theories). An important part of scientific practice in both the natural and social sciences involves distinguishing the language of research from everyday language by formalizing the definition of entities,
establishing mutually-exclusive and exhaustive typologies of properties, and proposing empirically falsifiable causal connections. In the process, the reality we have theorized becomes socially constructed in a way that should not be confused with an "objective reality" that is independent of the perceiver. In fact, we might even say that theoretical systems often become a filter through which we perceive social reality by identifying the relevant entities and the causal relations that link them. Everything else becomes irrelevant "noise."

One of the most important theorists of the relationship between language and empirical reality was Ludwig Wittgenstein and his early work provided much of theoretical foundation for logical positivism. Although he never belonged to the Vienna Circle, they readily modified their views in order to accommodate his "picture theory" of language. In his later work, however, Wittgenstein himself became a persuasive critic of that theory as he developed an alternative model which he called "language games."

Perhaps the most important and widely shared principle guiding the selection of conceptual commitments in the process of theory construction is the necessity of "falsification" (that a hypothetical proposition be susceptible to disproof by way of empirical demonstration). Karl Popper gives us a strong form of the "falsification" requirement as it applies (primarily) to the natural sciences. We can thus compare three different interpretations of "statements" as representations of empirical reality this week. What are the relative implications of each one for the possibility of a social science?

Required:


Recommended:

G.E.M. Anscombe, An Introduction to Wittgenstein’s Tractatus (South Bend, Ind.: St. Augustine Press, 2001).


Sixth Session (March 23): The Interdependence of Theory Construction and the Construction of Social Reality.

There are several possible stances that a social scientist might assume with regard to the existence of "laws of social behavior." He or she, for example, might assume that such laws must exist and that we should be pursuing them in much the same way that natural scientists do: by identifying the most likely candidates and then perfecting their empirical meaning and applicability. Eventually the statements (hypotheses) that are thus perfected would enter into a deductive framework from which we could deduce other likely candidates. Within this stance, we would be conducting research in much the same way as it is carried on in the natural sciences: hypothesis formation and experimentation. This stance is most often (but not exclusively) assumed by rational choice theorists. A closely associated stance is taken by those who have not thought much about the question of whether or not "laws of social behavior" might exist but nonetheless pursue research (and publication) strategies that implicitly mimic those adopted by those in the first stance. Put another way, they act and write as if they believe that such laws can be discovered without openly acknowledging that belief. This is probably the largest group in the social science community. A third stance is assumed by those who are openly agnostic about the existence of "laws of social behavior" but nonetheless believe that it is useful to identify patterns in human activity which can then inform our "educated judgment" as we attempt to create and guide human institutions. For social scientists in this group, knowledge is always contingent upon: (a) new information, (b) recognition that society is bewilderingly complex, and (c) that we ourselves are inextricably caught up in cultural meanings and frameworks that impair our deductions because of hidden and, in some instances, unknowable predispositions. The last of the four stances is assumed by those who altogether reject the possibility of such laws and thus view the activities of most social scientists as rather pointless.

This week we read a book that maintains that a set of catastrophic events, some human and some natural, collectively destroyed a vibrant and thriving community of civilizations around the year 1177 B.C. There are several questions that we might ask of this research. The first question regards the relationship between evidence and interpretation. The author is necessarily compelled to draw conclusions from incomplete information drawn from a highly biased set of sources (e.g. inscriptions on Egyptian tombs). While these conclusions are very carefully drawn, how certain can we be that this "evidence" can be proper material for the crafting of a social science (in the strict sense of that term)? For example, does the author ground some of these interpretations in empathetic judgments with respect to the personalities and characters of rulers? If so, what is the theoretical status of that technique (e.g. was "human nature" the same kind of thing four thousand years ago as it is today)? After citing the evidence at hand, the author then attempts to "fill in the blanks" where material artifacts do not exist (the modifiers "likely," "apparently," and their kin indicate where this "filling in" is occurring). All of these attempts ultimately depend on ostensible patterns of behavior (i.e. universal laws of social behavior) that can be projected back into the past. For all historians, such projections are a necessary part of their research. But all social scientists do the same kind of thing in our present as well. How similar, in this respect, are the two kinds of research? We could also ask how the very survivability of evidence gives rise to the creation of certain kinds of theoretical interpretations while other possibilities are simply ignored or, perhaps, incomprehensible because absolutely no evidence has survived. Imagine, for
example, everything you have done on this day up to the point where you read this sentence. How much of that could be "recovered" in research by an extraordinarily industrious scholar? How much of your life in general could be recovered? What of your own life experience has simply disappeared forever (but not, of course, from your own recollections)? This question primarily addresses the durable impact of your activities on the material environment. From the perspective of that impact, we are forever looking for our keys under the streetlamp (as the saying goes). There are exceptions of course. The discovery of DNA now allows us to chart the movement and spatial dispersion of hominids and humans in the past when, before that discovery, we could only make educated guesses. Similarly, the study of Indo-European languages allows us to trace likely settlement patterns in prehistorical Europe. What else, in terms of new kinds of evidence, might be over the horizon? Finally, one of Cline's intentions in writing this book is to inform "educated judgment" if and when a similar concatenation of catastrophes were to strike the modern world. What form does that judgment take in the absence of clearly articulated "laws of social behavior"?

In the readings this week, we pay special attention to the construction and deployment of "events" in social science theory. In order to construct such concepts, we must first identify how the units that it classifies are defined. For example, a taxonomy of butterflies must first define what a "butterfly" is in general and only then can it specify the characteristics that distinguish one butterfly from another. William Riker takes up one of the most difficult categories in the social sciences when he attempts to define an "event" so that the term can be deployed in the construction of hypotheses. Riker would, for example, consider a "war" to be such an "event." Does Cline's conception of "war" satisfy Riker's criteria? Hempel, like Riker, believes that there are "general laws" within which we can interpret history. Does Riker's conception of an "event" satisfy Hempel's criteria for such general laws?

One of the challenges facing all these scholars is the dearth of empirical evidence. Consider, for example, the challenges facing archaeologists as they try to reconstruct the past. Is at least some of the necessary evidence forever lost to us? Or, alternatively, will the collection and interpretation of social evidence from our own time enable a detailed construction of past by allowing us to "fill in the gaps" in the archaeological record? As it stands now, archaeologists must often adopt a "behaviorist" stance (e.g. drawing on evidence and patterns from our own time) while simultaneously realizing that such a stance is theoretically indefensible. Salmon and Wylie recognize that they must do this in their excavations but Cline is doing the same thing when he rests his own interpretations on their findings.

Required:


Recommended:
Seventh Session (March 30): The Unity of Knowledge.

Seventy-odd years ago many scholars enthusiastically embraced the idea that all scientific knowledge could be “reduced” and “translated” (using those terms very carefully) so that it rested on a common foundation. That foundation was considered both to provide: (a) a true understanding of the real world and how it could be interrogated and (b) a mutually productive exchange of ideas and concepts as the various academic disciplines and research communities agreed on a common lexicon which, in turn, embedded a shared agreement on how the scientist related to that real world. It is almost impossible to understate the enthusiasm and fervor with which logical positivists embraced this project. In constructing their Foundations of the Unity of Science, many of them felt that they were on the verge of a sweeping revolution in the way that science and humankind interpreted and interacted with the world. From the perspective of the social sciences, however, the major problems with this project involved the reduction and translation of human behavior into this universal lexicon. Their project remains unfinished. However, the potential unification of all of the natural and social sciences still remains a very powerful vision.

One of the most ambitious proponents of that vision has been Edward O. Wilson. This week we will read his Genesis in which he proposes that: (a) “eusociality” (a “high level of cooperation and division of labor” within a species “in which some specialists reproduced less than others”) can be explained within an otherwise orthodox frame of Darwinian evolution; (b) that eusociality, in turn, links the evolution of the human species to other major branches of the animal kingdom; (c) that we can best understand human evolution by studying these other branches; and (c) that such study will enable us to more effectively distinguish between the inherent elements of human behavior (i.e. those determined by evolution) and culturally chosen (i.e. epiphenomenal to genetic inheritance). As you will see, his work sometimes blurs this distinction (e.g. phenotype differences arising despite identical genetic endowments) and has clear socio-political implications (when he does not pursue in this book).

Required:


Part II

Individual Comprehension, Social Relations, and the Social Sciences

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Eighth Session (April 6): Intersubjective Consensus and Science.

The very notion of a "science" (as a research-oriented community of scholars) would seem to rest upon a fundamental intersubjective consensus among practitioners with respect to what constitutes evidence, including units of analysis, the theoretical meaning of an event, and, thus, whether and how a proposed hypothesis might be falsified. But that consensus also includes a shared confidence that there is something to be discovered through research as well as what that something might be. As Kuhn suggests, these preconditions for the collective pursuit of knowledge must be relaxed lest science turn into dogmatic ritual. One of the questions that we ask this week is how far and in what ways this intersubjective consensus can be relaxed before the research endeavor becomes a metaphorical "Tower of Babel." The second question is whether there is enough intersubjective consensus in the social sciences to even say that paradigms are possible. If so, what might they look like? If not, what should we be doing if we do not construct paradigms?

Required:


Recommended:


Recommended:

Ninth Session (April 13): The Self-understanding of Individuals and Interpretation of Their Behavior.

We usually assume that individuals have reasons that justify and guide their decisions and, thus, their behavior. These reasons, as a first approximation, can be revealed by asking them: “why did you do that?” However, that question often only provokes further questions of the same sort, rather like the three-year old who asks a parent an endless series of questions about what seems, to the parent and to the person the three-year old is curious about, to be perfectly prosaic behavior (such as waving to a cab driver on a public street). The child’s questions and the parent’s answers, of course, constitute a socialization into a particular culture’s social reality which we take for granted once we are properly socialized. Other cultures, including enclaves within what we consider our own, similarly socialize individuals into their own, distinctive social realities. The question this week is: How do we come to understand what is “taken for granted” in a social reality different from our own and how much must we understand of that distinctive social reality before we can interpret the behavior in such a community? In many ways, social science research often implies the cultivation of “empathy” as an interpretive technique, a technique that produces knowledge that must then somehow be transmitted to other analysts through a common language and logic. But just as empathy is not the same thing as self-understanding, the translation into a common language and logic is not the same thing as empathy.

Required:

Recommended:

The micro-foundation of a theory is composed of the smallest unit of analysis and its logical relations to other units. For example, a "social act" involving at least two individuals might be such a unit. One important question is whether or not all social science theories that construct and utilize macro-concepts (e.g., the "state," "society," "religion") must have micro-foundations. "Must" in this case refers to the requirement (at least as a logical possibility) that macro-concepts can be disaggregated into smaller components that can then, after identification and analysis, be reassembled once again into these macro-concepts.

There are at least two possible ways of interpreting this possibility. On the one hand, we might require that all macro-concepts must have micro-foundations and that these can be identified (logically deduced) even if the analyst who initially created these macro-concepts failed to posit those foundations. We might thus require that we can logically deduce (and thus impute) micro-foundations for any system in which they are initially lacking. This requirement might even allow that those micro-foundations change significantly as we move up the scale from, for example, small groups in which everyone knows the others to large communities in which individuals know only a very small proportion of the others. In that case, the problem is to specify that change and work it into the larger scheme. From this perspective, to say that a system "lacks micro-foundations" indicates that the system is incomplete but does not rule out the possibility that these might be provided.

On the other hand, we might concede that some theories contain macro-concepts that logically preclude the possibility of micro-foundations. That possibility might be precluded either because the abstract concepts in the theory actually assume that the analysis of things like "state" and "society" are not the direct product of, for example, individual acts or that the micro-foundations that are implied by the system are, in fact, contradicted by social reality (e.g., are not tenable as explanations of individual behavior). The former possibility might interpret, for example, the formation of macro-concepts (such as the "state") as the unintended consequence of individual acts in conjunction with random environmental effects. But once the state is formed, it then exhibits behavioral regularities that can be generalized into a theoretical system. The latter possibility might entail the construction of macro-concepts logically deduced from admittedly unrealistic (i.e. false) micro-foundations. In that case, only the macro-concepts enter into empirically testable propositions. In the former case, micro-foundations are dismissed as irrelevant because they cannot be connected to (produce) macro-concepts through intentional action. In the latter case, micro-foundations are invoked as idealistic extensions of the system with little or no bearing on the actual behavior of individuals.

These are all important theoretical problems. However, for empirical research, there is a prior difficulty: the state creates and controls the formation of concepts through which evidence is categorized and gathered. This week we examine three instances in which this intervention shapes not only the evidence that social scientists must use but the very uses to which it might be put. To what extent does the state's manipulation of concepts such as race, economic activity, and financial solvency determine not only the course of social science research but also the possible answers that it might yield? All of this is admittedly a large topic for one weekly session...
Eleventh Session (April 27): The Inter-translation of Social Reality and Language.

"When Gödel was asked in 1951 to deliver the prestigious Gibbs Lecture to the American Mathematical Society, he decided at last to give vent to his long-held Platonic convictions: 'I mean the view that mathematics describes a nonsensual reality which exists independently both to the acts and the dispositions of the human mind and is only perceived, and probably perceived very incompletely, by the human mind.'"


The way in which we distinguish between different objects and actions in social reality (taxonomies and categories) is contingently related to the theoretical systems that we construct. While it is possible to create taxonomies and categories that lack a theoretical rationale (in the sense that they do not anticipate use in theoretical propositions), all theories create taxonomies and categories. One of the major questions in the study of social behavior is whether the individuals who are studied must recognize and understand the taxonomies and categories with which the analyst constructs a theory in the same way as the analyst. This would be the case, for example, in systems in which individual (or collective) intention and meaning played a central role because the analyst would insist that the actor's intention and meaning constituted the empirical material addressed by the theory. However,
those systems that downplayed individual (or collective) intention and meaning might very well construct taxonomies and categories that the individuals and societies do not rely upon in their organization of social reality in everyday life. There are, of course, many possible variations between these two extremes. This week we are thus primarily concerned with the way “social reality” as empirical data is categorized and classified by language both from the perspective of the individuals who are analysed and by the analyst. We will also discuss Wittgenstein’s attempt to provide a non-idealistic grounding for mathematics and logic. The question in this reading is: What is mathematics and logic in relation to social reality?

A brief note on this last question: Many, if not most, social scientists distinguish between: mathematics (e.g., statistics) as an instrument for discerning patterns in human behavior and language as the form in which those patterns and relationships are articulated, summarized, and interpreted. In some instances (e.g., game theory), research primarily uses language to define symbols, categories, and concepts and the logical relationships between them. While this research may offer real world examples as illustrations as to how the findings might entail empirical applications, these examples normally use language sparingly and, in addition, do not constitute “tests” of what the research has produced. Instead, the abstractions and logical deductions employ theorems and assumptions that are similar to those in mathematics in that they are basically tautological and self-contained as a logical system. If the analysis does not produce empirical implications, the only conclusions that are produced are other logical statements entirely composed of symbols that bear no clear (meaning possibly falsifiable) relation to social reality. The logical manipulation of symbols thus constitutes the primary form of data analysis. If the analysis does produce empirical predictions, those implications must be “retranslated” into ordinary (academic) language that relate the prediction and its logical derivation to empirical evidence.

By contrast, most social science research interactively engages empirical evidence. In this engagement, induction and deduction are almost seamlessly interwoven into research. As “pure types,” neither induction nor deduction alone can give rise to a scientific theory. However, in practice, they do combine in a process that produces categories and concepts that “strip” social reality of unnecessary complexity (e.g., both irrelevant general properties and idiosyncratic detail). This process necessarily turns thick description into a lexicon of abstract concepts. These abstract concepts both generate and are subsequently deployed within their own logical system. That deployment produces propositions that can be “tested” against social reality. In those tests, the concepts are made empirically relevant (i.e., turned into language in the ordinary sense) through rules of application (e.g., formal definitions that describe what characteristics a social situation must display in order to count as a case of something). Colloquially, this retranslation of “abstract concepts” into “ordinary language” is often referred to as “operationalization.”

The important thing to note is that both approaches (the first involving the manipulation of symbols with “pure logic” and the other interactively producing categories and concepts by observing actual behavior) move between forms of ordinary language and more or less formal logics composed of abstract concepts, categories, and relations. But it is also important to note that the way in which we analyse these moves differs in significant ways depending on: (a) what kind of system it is; and (b) what the analyst states as his or her intention. In some (and perhaps most) cases, we must distinguish between the analyst actually does in making these moves and what they say they are intending to do.
Required:


Recommended:


Twelfth Session (May 4): The Economic Analysis of Macroeconomic Problems: Inequality and Its Causes.

As even the most superficial survey of the various disciplines that comprise the social sciences demonstrates, the study of human behavior proceeds along many different trajectories, each of them resting, for the most part, upon mutually incompatible assumptions concerning the nature of social knowledge and the way in which that knowledge can be produced. We might ask how these separate and distinctive orientations toward the study of human behavior are theoretically justified and maintained. If we attempted to answer that question, we would probably start by studying how the various social science disciplines maintain and insist upon their (relative) autonomy from one another when, at least superficially, at least all but one of them (and probably that one as well) must be "wrong" in the sense that they are each grounded in a mistaken fundamental assumption concerning the primary principles governing human behavior.

That, however, is too ambitious. So we will instead focus on just one discipline, economics, which is both commonly perceived as one of the most internally coherent disciplines in terms of its foundational assumptions and, also, the closest in form to the natural sciences. We will start with Friedman’s "The Methodology of Positive Economics" which proposes that logical propositions might never do any more than suggest forms of social reality. Despite often harsh criticism, this article remains one of the most important methodological and theoretical statements in the field. One of the
Questions that will most concern us this week is whether or not (1) the discipline of economics could ever hope to abide by Friedman’s strictures and, at the same time, answer some of the most pressing questions that economics attempts to answer and, relatedly, (2) whether, in answering those questions, economists must still draw upon related disciplines in the social sciences in ways that undercut its own coherence as a field of study.

Along with many other people, Thomas Piketty has proposed that economic inequality may be the most pressing contemporary problem facing the social sciences. We might interrogate his text in at least two ways. First, how does he martial and interpret evidence of inequality in income and wealth? Some of our discussion might draw upon our earlier readings of the construction of the concept of a “Gross National Product.” In order to proceed with alacrity in his analysis, he must take many things, such as data categories that are already in use, for granted. How might he alter those categories if he had a chance? Should his revisions become “standard conventions” in their construction or, alternatively, does every “social problem” demand a set of unique categories and concepts? Second, and perhaps more importantly, how does Piketty imagine the relationship between “social instability” (his term) and extreme economic inequality? On the one hand, this relationship appears to be the most important reason inequality is a pressing social problem. On the other hand, this relationship seems to be radically undertheorized compared to his economic analysis? Why is that?

Walter Scheidel attempts to explain the origins of economic inequality and demonstrates that it has fluctuated throughout history. Those fluctuations have been largely driven by what he calls the “Four Horsemen” of leveling: war, revolution, state collapse, and pandemics. Scheidel begins his analysis in the stone age, a period in which information is almost entirely drawn from archaeology and is often interpreted through analogies drawing upon ethnography. Once recorded history begins with the Sumerians, Scheidel utilizes the “Gini index” and other measures of relative income and wealth. However, because the data that such measures process is often faulty in one way or another, Scheidel is often compelled to draw upon history (the more social science variants of that profession), sociology, political science, and, at times, social psychology in order to recalibrate what the data might tell us. In that connection, you might pay close attention to those passages in which words and phrases such as “appears likely,” “seems to be the case, and the like are used. At the end of the day, is Scheidel able to construct “statements” of his findings that would satisfy Friedman’s requirements? If so, what are these statements (i.e. hypotheses)? If not, how would you reconstruct Scheidel’s analysis so that Friedman might approve of it?

Required:


Recommended:

Most of this week will be devoted to a review of the semester's readings and discussions. For that purpose, we will use the Parker and Nunn readings as background and foils. Parker, for example, addresses the relationship between climatic and pestilential catastrophes and political events such as revolutions, war, and the policies of states. From our perspective, we might ask how well he is able to reduce his thick descriptions of historical events and personal experiences to the kinds of "statements" (e.g. hypotheses) that a more positivist social scientist might appreciate. On the one hand, Parker presents abundant evidence of the coincidence of climatic catastrophe and political upheaval. On the other hand, the patterns are often quite indistinct with lags of one kind or another which reduce the rigor of the connections he wishes to make (and, in many cases, catastrophe occurs with no subsequent upheaval and vice versa). In addition, Parker also repeatedly says that, paraphrasing, "history is very complex" and implies that explicit theoretical models are impossible to construct. However, he also insists (at the very end of his book) that we can learn lessons from the "global crisis" of the seventeenth century that can be applied to our own emerging global crisis. How would the various scholars we have read this semester evaluate and react to his argument? Nunn is more formal in his marshaling and evaluation of historical evidence but we can ask the same questions of his work as well. In general, we want to discuss the relationship between different kinds of evidence, the varieties of historical reconstruction, and the great questions of contemporary social science in this session. Among many other things…

**Required:**


**Recommended:**
