Methods, Methodology and Philosophy of Science

Clarifying the Connections

Grading Scheme

- Mid-sem exam 30 %
- Research Project (due end of semester) 40%
- Two response papers (written + presentation) 30%

The fundamental distinction between methods and methodology

- Methods as a research ‘tool-box’ to pick and choose out of

- depends on research question to be answered, available evidence etc

- tools for both generating or collecting information as well as analyzing data

- e.g. interview, survey, focus-group discussion, systematic observation, life history (collection devises)

e.g. triangulation, descriptive statistics, regression, principal component analysis (techniques for analysis)

- Methodology is a reflexive process of being conscious about “….the logical structure and procedure of scientific enquiry” or “thinking about thinking”.
- In this sense research methodology is much broader than specific methods being chosen for research
- Any example ?

Philosophy of Science

- Deliberation on the nature of valid scientific enquiry and proposing both criteria for how scientific research should be conducted (prescriptive) and how scientific practices are carried out (descriptive).
- Therefore, intimately connected to questions of methodology
- What is science for us?
- " (Scientific theories are).....derived in some rigorous way from the facts of experience acquired by observation and experiment. Science is based on what we can see, hear and touch, etc. Personal opinion or preferences and speculative imaginings have no place in science. Science is objective" (Chalmers 1982:1).
- "Man's respect for knowledge is one of his most peculiar characteristics. Knowledge in Latin is *scientia*, and **science came to be the name of the most respectable kind of knowledge**." (Lakatos, 1973)
- Science as ***valid*** knowledge

Readings for next class

- Chapter 1(Introduction to the 1st edition) from Ten Benton and Ian Craib (2010) Philosophy of Social Science. Palgrave
- Giovanni Sartori (1970) Concept Misformation in Comparative Politics. *American Political Science Review*

Tenets of Empiricism (Benton and Craib, 2010)

- The individual human mind starts out as a ‘blank sheet’. We acquire our knowledge from our sensory experience of the world and our interaction with it
- Any genuine knowledge-claim is testable by experience (observation or experiment). This rules out knowledge-claims about beings or entities which cannot be observed
- Scientific laws are statements about general, recurring patterns of experience. To explain a phenomenon scientifically is to show that it is an instance of a scientific law
- If explaining a phenomenon is a matter of showing that it is an example or ‘instance’ of a general law, then knowing the law should enable us to predict future occurrences of phenomena of that type. The logic of prediction and explanation is the same. This is sometimes known as the thesis of the ‘symmetry of explanation and prediction’
- Scientific objectivity rests on a clear separation of (testable) factual statements from (subjective) value judgements

..and Positivism in Social and Human Sciences

- The empiricist account of the natural sciences is accepted.
- Science is valued as the highest or even the only genuine form of knowledge
- Scientific method, as represented by the empiricists, can and should be extended to the study of human mental and social life, to establish these disciplines as social sciences
- Once reliable social scientific knowledge has been established, it will be possible to apply it to control, or regulate the behaviour of individuals or groups in society. Social problems and conflicts can be identified and resolved one by one on the basis of expert knowledge offered by social scientists, in much the same way as natural scientific expertise is involved in solving practical problems in engineering and technology. This approach to the role of social science in projects for social reform is sometimes called ‘social engineering’