

Week 1: Introduction and Overview

Lecture: introduction to critical analytical skills

Importance of critical analytical skills

- Learn fundamental skills used in social science research.
- Provides a toolkit to study and understand the social world.
- Good preparation for next year(s) and the job market – most important criteria when recruiting graduates in 2014:
 - Interpersonal and communication skills (58.3%).
 - Reasoning and problem-solving skills (22.6%).
 - Technical skills (14.4%).

Nature of knowledge – how do people know?

- **Personal experience and common sense:** experiences in everyday life can provide knowledge but this creates overgeneralisation and selective observation.
- **Authorities and experts:** reliance on the wisdom of teachers, leaders and politicians. However, the *halo effect* (cognitive bias where there is a tendency to form positive impressions that can influence one's opinions or emotions) can come into play and sometimes people overestimate the accuracy and knowledge of these people.
- **Popular and media messages:** however, journalists are not scientists and use gatekeeping to control which information/news is emphasised.
- **Ideological beliefs and values:** what people are taught about morals, values and ideas of the world through religion, faith and their own beliefs.
- **Science:** people require scientific literacy to understand what scientists present. They provide robust information to understand the world and this has brought changes to modern-day thinking. It brought in a new way of thinking based on logical reasoning, experimentation and alteration. However, it has its limitations: not everything can be easily reasoned or experimented on.

Auguste Comte (1798-1857)

- **Auguste Comte** invented the term 'sociology'. Used to call it 'social physics' as he used the methods from the natural sciences to understand the world.
- He sought to develop a general theory or laws of the social world.

- By uncovering the laws that govern human society, it can then be improved.
- **Comte's sociology**: 'positive science'. *Positivism*: science should only be concerned with observable entities that are known directly to experience.

The social sciences

- **Social sciences**: scientific study of human societies, social life and social relationships (e.g., beliefs, behaviours, institutions, interactions, etc.)
- Social science knowledge production:
 - Rigorously produced via systemised methods that are transparent so that they can be evaluated by the reader.
 - Must be clear about what researchers claim to know.
 - Evaluates the merits of knowledge or claims to knowledge.
- **Peer review process**:
 - Scientists study something and write about their results.
 - Journal editor receives an article and sends it out for peer review.
 - Peer reviewers read the article and provide feedback to the editor.
 - Editor may send reviewer comments to the scientists who may then revise and resubmit the article for further review.
 - If an article does not maintain sufficiently high scientific standards, it may be rejected.
 - If an article finally meets editorial and peer standards, it is published in a journal.

Epistemology – how can people know?

- Positivism \leftrightarrow interpretivism.
- **Positivism/post-positivism**: epistemological position that supports the application of the methods of the natural sciences to study social reality. It is a way of perceiving the world and making sense of it.
 - Principles: phenomenism, deductivism and objectivism.
 - *Phenomenalism*: only knowledge that can be seen or observed can be known as knowledge.
 - *Objectivism*: science must be conducted in a way that is objective.
- **Positivism**: the world is independent of/external to/unaffected by the researcher. *Scientific knowledge*: tangible, objective, value-free,

confirmed by the 'senses'. Therefore, the social world is understood through the explanation of human behaviour.

- **Sir Karl Popper** (1902-1994):
 - Begun a new school about being critical of positivism but also drawing from it.
 - Introduced the idea of *falsifiability*: 'the criterion of the scientific status of a theory is the falsifiability or refutability or testability'. This is the attempt to falsify models and ideas rather than confirm them.
- **Interpretivism**: epistemological position that respects the differences between people and the objects/subjects of the natural sciences, where the social world and the researcher impact each other. It is critical of pure notions of objective knowledge and value-free inquiry.
 - Max Weber's Verstehen (interpretive sociology).
 - Hermeneutic-phenomenological tradition (e.g., Merleau-Ponty).
 - Symbolic interactionism (e.g., G.H. Mead, Erving Goffman).
 - Knowledge is produced by exploring and understanding the social world (e.g., meanings, perceptions) of the people being studied.

Ontology – what can people know?

- Objectivism ↔ constructionism.
- **Objectivism**: ontological position that argues that social phenomena and their meanings have an existence that is independent of social agents. Reality can be observed directly and accurately.
- **Constructionism**: ontological position that argues that social phenomena and their meanings are continually being accomplished by social agents. Reality is understood through socially constructed meaning.

Methodology – how can people find out?

- Quantitative ↔ qualitative.
- **Methods**: instruments used to make sense of the social world.
- **Social science research**: scientific means of acquiring information on various aspects of society and social behaviour to understand: what? how? why?
- **Empirical research**: collection of data; empirical means based upon observation and measurement.

- **Theoretical research:** draws on existing literature to develop new ideas (e.g., analysis of existing theory).
- **Scientific method:**
 - Make an observation.
 - Ask a question.
 - Form a hypothesis.
 - Conduct an experiment.
 - Collect data.
 - Accept or reject hypothesis.
- 'In science, when human behaviour enters the equation, things go non-linear. That's why Physics is easy and Sociology is hard' – Neil deGrasse Tyson.
- Purpose of research methods:
 - To think systematically about the world.
 - To identify patterns and characteristics in a robust way.
 - To accumulate knowledge in a transparent way.
- **Quantitative research methods:** focus on quantification (data collection and analysis). Techniques: surveys, experiments, and statistical analysis.
- **Qualitative research methods:** focus on words/images (data collection and analysis). Techniques: interviews, participant observation, thematic analysis, and discourse analysis.
- Quantitative vs. qualitative research:

Quantitative research	Qualitative research
Numbers	Words
Point of view of researcher	Point of view of participants
Theory testing	Theory emergent
Static	Process
Structured	Unstructured
Hard, reliable data	Rich, deep data
Macro	Micro
Artificial settings	Natural settings