





Positivism (& Empiricism)

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Lecture Format

- Preliminary considerations
- Positivism/Positivist social science (PSS)

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Preliminaries ...

- Positivism is one of the three core approaches to Social Science research (including sociology!)
 - i.e., Interpretive social science (ISS) & critical social science (CSS), are the other two methodologies (Neuman, 2013).
- Whether you, your seniors, friends, or cousins conducting research (BS, MS/MPhil, PhD etc.) **understand** or **know** about these or not, **ALL** researches would fall into either of these!

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Cont'd...

- WHY THREE MAJOR METHODOLOGIES? WHY NOT JUST ONE?
- Because:
 - Differences in Philosophical Foundations!
- Two (philosophically) central questions:
 - What is the fundamental nature of reality? aka **Ontological** considerations
 - Ontology = "An area of philosophy that deals with the nature of being, or what exists; the area of philosophy that asks what really is and what the fundamental categories of reality are" (Neuman, 2013: 94).
 - How do we know or understand reality? aka **Epistemological** considerations
 - Epistemology = "An area of philosophy concerned with the creation of knowledge; focuses on how we know what we know or what are the most valid ways to reach truth" (Neuman, 2013: 95).

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Ontology

- Two basic positions regarding "the nature of being/reality"
- Realist** position
 - Assumes that the "real world" exist independent of humans and their interpretation of it.
 - "What you see is what you get" (Neuman, 2013, p. 94)
 - E.g., you see a chair, fan, multimedia, computer etc. and that's it!
- Nominalist**
 - Assumes that human never experience "reality" directly as something "out there"; our experience of "real world" always occurs through a lens of **interpretation** and **inner subjectivity**.
 - Personal biography and cultural views organize/shape our experiences into categories and patterns.

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Nominalist view

Nominalist view human beings almost as in, e.g., "blind men and an elephant"!



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Epistemology

- Means, “what we need to do to produce knowledge and what scientific knowledge looks like once we have produced it” (Neuman, 2013, p. 95).
- Realist (positivist) position:
 - There is an empirical world “out there” irrespective of our inner thoughts and perception about it.
 - Observe (collect empirical evidence) again and again to verify reality consistently;
 - Consistent verification/reverification would produce **objective** knowledge
 - Through consistent verification (objective knowledge), we’ll discover laws governing reality

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Positivism is

- “an epistemological position that advocates the application of the methods of the natural sciences to the study of social reality and beyond” (Bryman, 2012, p. 28). [See p. 28 of Bryman (2012) for further principles of positivism as well!]
- “Positivist social science is an organized method for combining deductive logic with precise empirical observations of individual behaviour in order to discover and confirm a set of probabilistic causal laws that can be used to predict general patterns of human activity” (Neuman, 2013, p. 97).

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Positivism: brief history

- In philosophical history, positivism was the contribution of:
 - Two British philosophers, (1) David Hume (1711–1776) in *A Treatise of Human Nature* (1739–1740) and (2) John Stuart Mill (1806–1873) in *A System of Logic* (1843), outlined the fundamentals of positivist science.
 - Sociology French founder — Auguste Comte (1798–1857) — wrote *Cours de Philosophie Positive* (*The Course of Positive Philosophy*) (1830–1842), elaborating the principles of social science positivism.
 - Émile Durkheim (1858–1917) used positivist assumptions in his *Rules of the Sociological Method* (1895), a core text for early social researchers.

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Positivism/Positivist Social Science (PSS)

- **The ultimate purpose of conducting social science research:**
 - To discover and document universal **causal laws** of human behavior
- **The fundamental nature of social reality:**
 - Adopts “realist ontology”, i.e., reality exists out there waiting to be discovered!
 - The world is not chaotic and irregular; patterns and laws exist in the social world and through constant investigation (verification) we shall one day have laws (e.g., just as in Physics there are laws of motion!)
 - Science's quest is to discover patterns in the shape of laws governing human behaviour.
 - Reality is **stable** and our knowledge about it is additive.
 - Researchers carefully document fragments/parts of reality again and again to finally clarify/discover them and put (pieces) together, we shall have laws!

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Positivism/PSS

- **The basic nature of human beings:**
 - Human beings = self-interested, pleasure-seeking/pain-avoiding, rational mammals.
 - A cause → same effect on everyone - observable from human behaviour in the external/real world
 - mechanical model/behaviourist approach about humans. i.e., observing people's external behaviours and documenting outside forces acting on them are sufficient to provide adequate explanations of human thought and action.

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Positivism/PSS

- **Question of human agency (freewill, volition, & rationality):**
 - Structural factors (social, cultural etc.) more important than individual, subjective, inner feelings (agency) –
 - in social/sociological theory, this dilemma discussed as Agency-Structure debate!
 - Structuralist orientation!
 - Positivism/PSS is deterministic (emphasizing “determinism”) – i.e., determining causes/mechanisms that produce effects.
 - People not robots/puppets to act according to culture only, but research will advance understanding of the probability of certain behaviours.

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Positivism/PSS

- ▶ **Common sense relationship with scientific knowledge**
 - ▶ Marked difference and contrast b/w both.
 - ▶ Discovery of “truth” the ultimate purpose of science; hence, superior to commonsense (full of logical contradictions)
 - ▶ Non-scientific knowledge (religion, magic, personal experience, tradition, etc.) inferior to positivist knowledge.
 - ▶ Although science may borrow common sense ideas, but rigorously defined and investigated!

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Positivism/PSS

- ▶ **The constituents of explanation/theory of social reality:**
 - ▶ Positivism is nomothetic
 - ▶ Greek word 'nomos' = law and 'thetēs' = one who establishes: nomothetic – “A type of explanation used in positivist social science that relies heavily on causal laws and lawlike statements and interrelations” (Neuman, 2013, p. 99).
 - ▶ i.e., based on a system of general laws: X causes Y! – Covering Law model.
 - ▶ Laws of human behaviour be transhistorically and universally valid.

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Positivism/PSS

- **Determining true/false explanation:**
 - Ground in enlightenment ideas, positivist believe in people's capacity to recognise truth and distinguish from falsehood via reason – human conditions improvable through reason and pursuit of truth.
 - How? 2 conditions for judging explanations: (1) no logical contradictions; (2) consistency with observed facts – through replication the whole system of knowledge creation under constant check/challenge.

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Positivism/PSS

- **Good evidence or factual information:**
 - Dualist view: facts exist apart from our personal values, ideas, theories
 - Facts discoverable via five senses (hearing, smelling, touching, seeing, tasting) or through their extension (telescope, microscope, etc.)
 - Empirical knowledge superior to intuition, emotions, etc.
 - Hence, positivists are strict empiricists!
 - Empirical evidence shared with rational people (who can independently observe it) with subjectively agree to it – i.e., **intersubjectivity**
 - Application of **falsification principle** – a black swan found after documenting 1000s of white swans!

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Positivism/PSS

- **Use or relevance of social scientific knowledge:**
 - **Instrumental orientation**
 - means-end rationality/orientation to use S/knowledge for people's control of their environment (social, political, economic, physical, etc.)
 - **Technocratic perspective**
 - Uncritically conducting applied research for government, industry, bureaucracy (with their funding!) and furnishing required information.

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Positivism/PSS

- **Space for sociopolitical views in science:**
 - **Value-free science (objectivity!)**
 - Objective = (1) agreeing on what observers observe; (2) no reliance on values, feelings, opinions, beliefs
 - means-end rationality/orientation to use S/knowledge for people's control of their environment (social, political, economic, physical, etc.)
 - **No room for moral/political questions/issues**
 - Mostly set aside as irrational, subjective inclinations.

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Source/suggested reading

- Neuman, W. L. (2013). *Social Research Methods: Qualitative and Quantitative Approaches* (7th ed.). Pearson Education Limited: Essex.

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