Is Sociology a Science?

Key features of Science

- Objectivity
  - Scientists are value-free - thus knowledge is objectively true, anyone can repeat experiments test results
- The experimental method
  - Observability and repeatability
  - Cause and effect relationships
  - Precise measurements
  - Controlling variables
- The hypothetico-deductive model
  - Knowledge evolves gradually through hypothesis testing

Positivism: science applied to sociology

- These facts are not influenced by the personal beliefs of the researcher
- There are objective facts about the social world, expressed in statistics
- To be scientific, you should only study what you observe, not people's emotions
- Human behaviour can be explained by external stimuli, it is possible to uncover the laws of human behaviour
- Durkheim's Suicide (1897)
- Inductive approach - start with the evidence and then derive theory

Interpretivist criticisms of positivist sociology

- Differences between society and the natural world
  - The social world is socially constructed
  - You cannot understand human action without understanding the meanings people attach to their actions
  - Postmodernism - you can only understand the world through language, there is no way to observe it directly
- Problems of prediction
  - People have consciousness, they judge situations and how to respond to them based on their life-histories, and personal opinions, which we cannot know objectively
  - Thus if sociology aimed to make predictions, it would always be proved wrong

Realism

- Sayer - open snd closed systems
- Closed systems science - eg chemistry, physics
  - knowledge collected in a controlled environment, typically in a lab
  - Concerned with directly observable phenomena
- Open systems science - eg meteorology
  - Knowledge collected in an open, uncontrolled environment, multiple variables
  - Often concerned with unobservable phenomena
- Sociology can be scientific in the same way open systems science is
  - 'Scientific' sociology can...
    - Look at society as a 'system'
    - Make probability predictions, like weather forecasting
    - Theorise about underlying structures or laws which can't be seen directly but have an effect on human action
  - But (like meterology) it can't
    - Make accurate predictions about human behaviour
    - control all the variables

Modernity, Postmodernity and Science

- The scientific world view and the idea of scientific sociology were part of modernity – there was 'one truth' and science could reveal it
- Lyotard (1984) - Scientific language may open our eyes to some truths; it just closes our eyes to others
- Postmodernists challenge the idea that science produces the truth about the natural world. Rorty (1984) - scientists have just replaced priests as the source of truth; there are still many unanswered questions about the nature of reality

Criticisms of the 'objectivity' of science

- Bruno Latour: Science as the 'construction of versions of reality'
  - Scientists spend lot of time trying to win research grants (rather than doing actual research); little incentive to disprove ideas
  - Scientists tended to form networks - individuals engaged in a 'fierce battle to construct reality'. If an individual challenged the version of reality being produced, they could be dis-enrolled from the network.
- Thomas Kuhn: Paradigms and Scientific Revolutions
  - Science is not characterised by consensus – scientific knowledge shifts in a series of 'revolutions'
  - Evolution of scientific knowledge is limited by 'paradigms', a basic world-view which includes basic assumptions about the nature of reality
  - Scientists build their careers working within the dominant paradigm, ignoring any evidence which doesn't fit in with their general framework.
  - Rogue scientists' engage in alternative research, when sufficient evidence builds up, a 'paradigm shift' occurs, and a new dominant paradigm comes into force
  - Criticised by Lakatos (1970) –modern science is much more open to testing new ideas today