Early Stage Research Training: Epistemology & Ontology in Social Science Research

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Generic Skills Training for Research Students

University of Leicester

Aims and Objectives: Getting a Grip

Aims

A 'dangerously simple' introduction to the philosophy of social science, assuming no previous knowledge

Objectives

Differences in the epistemological starting points of qualitative and quantitative approaches

Connections with ontology

Core issues involved in research design

Some of the links between philosophical debates and research practice

These Should Come with a Government Health Warning!

Epistemology: What Constitutes Valid Knowledge and How Can We Obtain It?

Ontology: What Constitutes Reality and How Can We Understand Existence?

Two Main Positions Considered Here: Positivism & Interpretivism

Underpins the Qualitative Versus Quantitative Debate

Could Call it: "The Scientist Versus Detective" Debate

Epistemology, Ontology & Research Practice

- 4 key items in the construction and process of research:

  1. Methods - techniques or procedures
  2. Methodology - strategy, plan or design linking the choice of methods to the desired outcomes
  3. Theoretical perspectives - our philosophical stance, informing the methodology and providing context for its logic and criteria
  4. Epistemology & Ontology - our theory of knowledge and view of reality, underpinning our theoretical perspective and methodology.
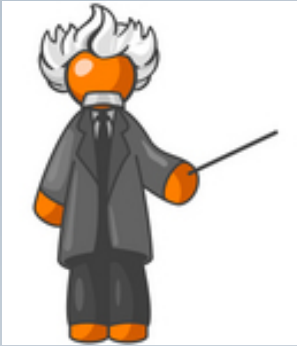
- Which comes first…?!?

Positivism: The Researcher as Scientist

- The Natural Sciences as a Model

- The Quest for *Objective* Knowledge

- A *Deductive* or Theory-Testing Approach *

- Underpinned by an *Objectivist* or *Realist* ontology: facts are facts

- *Explaining* how and why things happen: Measurement, Correlation, Statistical Logic, Verification

- Typical Methods: Surveys, Questionnaires, Random Sampling

- Example Hypothesis: *Violence on TV Leads to Juvenile Violence*

- Problems with this approach?

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Interpretivism: Researcher as Detective

Arises from a Critique of Using the Natural Sciences as a Model for Social Research

The Quest for *Subjective* Knowledge

An *Inductive* or Theory-Building Approach *

Underpinned by a *Subjectivist* ontology: people are people

Understanding How and Why Things Happen: Elucidating Meaning

Typical Approaches: Ethnographic Study; In-depth Interviews; Analytical Approaches

Revisiting the Example: *What are the Causes of Juvenile Violence?*

Problems with this Approach?

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The Pros and Cons

	Positivism	**Interpretivism**
Advantages	Economical collection of a large amount of data	Facilitates understanding of how and why
	Clear theoretical focus for the research from the outset	Enables the researcher to be alive to changes which occur
	Greater opportunity for the researcher to retain control of the research process	Good at understanding social processes
	Easily comparable data	Allows for complexity and contextual factors
Disadvantages	Inflexible – direction often cannot be changed once data collection has started	Data collection can be time consuming
	Weak at understanding social processes	Data analysis is challenging and can be complex
	Often does not discover the meanings people attach to social phenomena	Researcher has to live with the uncertainty that clear patterns may not emerge
		Generally perceived as less credible by 'non-researchers'

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Positivism and Interpretivism: Explaining & Understanding

Positivism	Explaining (*Erklaren)*	Interpretivism	Understanding (*Verstehen)*
Natural sciences		Social sciences	
Objective	Observable facts	Subjective	Individual meanings and actions
Realism	Facts are facts the truth can be captured if we use the right methods	Subjectivism	People are people the truth is out there, but it's complex
Value-free	Universal principles and facts	Culturally and historically situated interpretations	Interpretations, meanings, motivations and values of social actors, structures and patterns

The Methodological Continuum: Asking the Right Questions about Your Research

Theory-Building					Theory-Testing	
Qualitative					Quantitative	
Heavily Interpretivist					Heavily Positivist	
5	10	25	50	100	250	500

5 Depth Face-to-Face Interviews

High Response Rate Expected

More Analytical Work

500 Closed-Ended Postal Questionnaires

Low Response Rate Expected

More Design/Implementation Work

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Group Exercise: But I Don't Have a Problem...!

As a group, you have been allocated a research question.

Working with this question, follow these steps:

1. *Epistemology & Ontology*: considering your question, decide whether your approach will be more positivist or more interpretivist (or a combination) by asking: what kind of knowledge is valid and how can we make sense of existence/reality? (10 Minutes)

2. *Methods*: Draw up a short research brief containing: (a) the methods you could use (e.g. closed-ended questionnaires, depth-interviews); (b) the scale of your research (e.g. sample size) and (c) the mode of data collection (e.g. face-to-face, by post, by e-mail, by telephone). (5 Minutes)

3. Choose a spokes person to report back on: (i) how your research brief grew out of your epistemological starting point(s); (ii) any difficulties you faced in agreeing on epistemological and ontological positions in relation to your proposed research; (iii) potential limitations to the research: e.g. in terms of validity, representativeness, etc. (5 Minutes)

p.s. It's okay to disagree but make a decision!

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Explaining and Understanding II

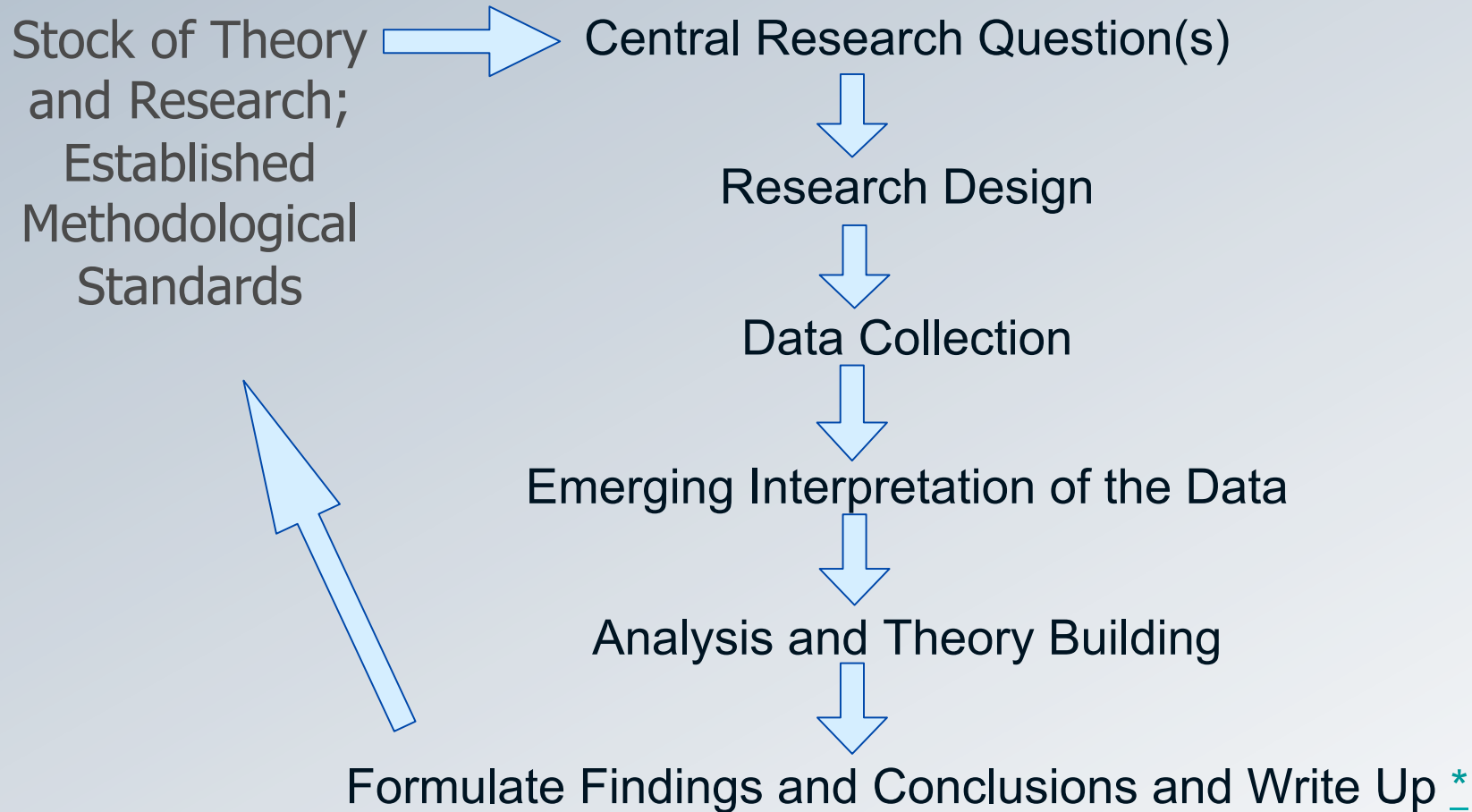| Positivism	← Post-positivism ➜	Interpretivism	←➜	Critical inquiry
Explaining		Understanding		Challenging/Critiquing (for change)
Natural sciences		Social sciences		←➜ Critical Theory
Objective		Subjective		←➜ Feminism
Value-free		Culturally and historically situated interpretations		←➜ Postmodernism ←➜ Poststructuralism
Universal principles and facts		Individual interpretations, meanings, motivations and values of social actors		

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The End

Useful further readings:

Creswell, JW. (2003). *Research Design: Qualitative and Quantitative and Mixed-Method Approaches*, Thousand Oaks, CA: Sage Publications.

Crotty, M. (1998) *The Foundations of Social Research : Meaning and Perspective in the Research Process*, London: Sage Publications.

Hughes, J. (1997) *The Philosophy of Social Research*, 3rd Ed., London: Longman.

Marsh, D. and Furlong, P. (2002) A Skin Not A Sweater: Ontology and Epistemology in Political Science, in D. Marsh and G. Stoker (Eds) *Theory and Methods in Political Science*, 2nd Ed., Chapter 1, pp. 17-11.

May, T. and Williams, M. (Eds) (1998) *Knowing the Social World*, Buckingham: Open University Press.

Punch, K. (2005) *Introduction to Social Research: Quantitative and qualitative approaches*, London: Sage Publications.

Smith, M. J. (1998) *Social Science in Question*, London: Sage Publications in association with the Open University.

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