


UNIVERSITY OF COPENHAGEN

Sociological methods  
Introduction and operationalization

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UNIVERSITY OF COPENHAGEN

Agenda  
The workshop

- Tuesday afternoon (the WPs)
  - Presenting the social science aspects
- Tuesday afternoon (Jesper)
  - Introduction to sociological methods
  - From research questions to the interview guide/questionnaire (Operationalization 1; key concepts; dimensions and themes)
- Wednesday morning 1 (Jesper)
  - Interviews - introduction
  - Facilitation, timing and the interview guide
- Wednesday morning 2 (Bodil Just Christensen)
  - Interviews – how to ask questions and timing continued
- Wednesday afternoon 1 (Thomas Bøker Lund)
  - Questionnaires – facilitation, questions, timing
- Wednesday afternoon 2 (Jesper Lassen)
  - Analyzing interview data
  - Transcription, coding, meaning condensation and analysis of arguments



## Phases of the sociological study

- Research question
  - What is it you want to know about the social world?



## The two kinds of sociological questions: Empirical and theoretical

Empirical questions: Questions about **how** things are/ were in society.

- Factual questions:
  - e.g. what is the public perceptions of GM pigs in Denmark
- Comparative questions: Factual questions in different contexts
  - e.g. what is the difference between public perceptions of GM pigs in Denmark and China
- Developmental questions: Changes over time
  - e.g. has the public perception of GM pigs in Denmark changed between 1996 and 2010?

Theoretical questions: Questions about **why** things are the way they are.

- How can we understand the rejection of GM pigs in Denmark?
- Why are the perceptions of GM pigs different in Denmark and China?



## Phases of the sociological study

- Research question
  - What is it you want to know about the social world?
- Design
  - Qualitative or quantitative?



## Qualitative or quantitative method?

	Qualitative	Quantitative
Suitable, when asking	<ul style="list-style-type: none"> <li>• How?</li> <li>• Why?</li> </ul>	<ul style="list-style-type: none"> <li>• How many?</li> <li>• How often?</li> <li>• What is the correlation between X and Y?</li> </ul>
Tools	<ul style="list-style-type: none"> <li>• Individual interviews</li> <li>• Focus group interviews</li> <li>• Observational studies</li> </ul>	<ul style="list-style-type: none"> <li>• Questionnaire surveys</li> <li>• Structured interviews</li> </ul>
Data	<ul style="list-style-type: none"> <li>• Words</li> <li>• Doings</li> </ul>	<ul style="list-style-type: none"> <li>• Numbers</li> </ul>
Knowledge	<ul style="list-style-type: none"> <li>• The individuals subjective perception and values</li> <li>• Individuals practices</li> <li>• Complex (deep), but regarding few individuals</li> </ul>	<ul style="list-style-type: none"> <li>• The distribution of a phenomenon in a population</li> <li>• The correlation between different phenomena</li> <li>• Simple (representative), but regarding many individuals</li> </ul>
Pitfalls	<ul style="list-style-type: none"> <li>• Generalizing to the whole world</li> <li>• Affecting answers through bad Q.</li> </ul>	<ul style="list-style-type: none"> <li>• Studying too complex phenomena</li> <li>• Finding 'false' correlations</li> <li>• Affecting answers through bad Q.</li> </ul>



## Phases of the sociological study

- Research question
  - What is it you want to know about the social world?
- Design
  - Operationalization 1: Making the respondents provide the data you need to answer your research question?
    - Key concepts, dimension and themes

### Qualitative

- Operationalization 2
  - Facilitation and timing
- Interview guide - your tool
- Recruitment and respondents
  - Given the research question, who should be included as respondents
- The interview
  - Transcription of the interview
    - The interview reduced to a text
  - Coding
    - The organized data
  - Interpretation
    - Reading retrieved codes and answering the research question

### Quantitative

- Operationalization 2
  - Facilitation and timing
- Questionnaire - your tool
- Respondents and recruitment
  - Given the research question, who should be included as respondents
- The survey
  - Preparing the produced data for statically analysis
  - Statistics
  - Interpretation
    - Interpreting patterns, correlations etc. and answering the research question



## Validity and reliability

~ Sociological quality control

Validity (of the study): Are we studying what we wanted to study?

- The person: quality of craftsmanship of the researcher (credibility; experience; formal training...)
- The design: will the chosen method/ tool /analysis help answering the raised research questions?
  - Who? (Population and sample)
  - Qualitative or quantitative?
  - Analytical strategy
  - ...



Reliability (of data): Can we trust the produced data?

- Recruitment - Biased?
- The tool (interview guide/ questionnaire) - Does it work (tested?); is it understandable?
- The context of the respondent when answering - local/ global
- ...



## Operationalization

A way to achieve validity

- What is operationalization?
  - The process ensuring that the study produces the kind of data needed to answer the research question
    - **Content:** Linking research question to the interview guide/questionnaire.
    - **Structure:** Resulting in a interview guide / questionnaire organizing data production during the production of data.
- Why operationalize?
  - Because a good and systematic operationalization help ensure the validity of the study!
  - Because the research question often include social scientific concepts that does not make sense to respondents.
- How to operationalize?
  - Use an operationalization template...



## Operationalization template

Concepts	Dimensions	Theme	Facilitation	Timing
Identification of key-concepts from the research questions	Breaking the key-concepts down into dimensions	Identification of interview themes illuminating each dimension	Specification of questions, exercises etc. illuminating the theme	Determining the order of themes, questions, exercises etc.
What?		How?		When?

Same for qualitative and quantitative studies

Different for qualitative and quantitative studies



## Operationalization Concepts

### Concepts

Identification of key-concepts from  
the research questions

Will the public perceive pigs, genetically manipulated to resist  
swine flue, as a risk?



## Exercise

Identify concepts in your ANIMPACT research  
questions



## Operationalization Dimensions

Concepts	Dimensions
	Breaking the key-concepts down into dimensions

- Sources of inspiration
  - **Social scientific theories:** will often provide a 'map' of the concepts and their dimensions
  - **Empirical studies** of similar cases: will often suggest and rank dimensions
  - Your own **intuitions**
- Review the literature!



## Operationalization Dimensions

CASE: Will the *public* perceive pigs, genetically manipulated to resist swine flue, as a risk?

- Theoretical inspiration from sociology and social psychology of risk
- Empirical inspiration from studies of perceptions of GM plants and other risks

Concepts	Dimensions
Risk	Human health risks Environmental risks Pollution Biodiversity ... Naturalness Process based unnaturalness related to human intervention (genetic manipulation) Property based unnaturalness related to new properties of the transgenic pig ...



## Exercise

Identify dimensions of the different concepts



## Operationalization Themes

Identification of themes illuminating each dimension

- Or: what should you address in the interview/ questionnaire

Concepts	Dimensions	Theme
Risk	Human health risks	Buying pork Eating pork Feeding pork to your children
	Environmental risks (pollution)	Agricultural pig production Buying pork
	Environmental risks (biodiversity)	Agricultural pig production Buying pork
	Naturalness (prod. & process)	
	?	Pork (associations)





## Exercise

Suggest one or more themes for some/ all the identified dimensions

