LCIRAH

Leverhulme Centre for Integrative Research on Agriculture and Health

Qualitative methods in Agriculture, Nutrition and Health research

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Accra, Ghana

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Session Plan

- Introduction to qualitative research
- Overview of qualitative methods
- Activity 1: interviewing (part A)

Lunch break

- Activity 1: interviewing (part B)
- Activity 2: coding a transcript
- Wrap-up and feedback

Introductions / Discussion

- Group introductions:
  who are you?
  what do you do?

- What's the main question or aspect about qualitative research that you would like to answer or understand?

  (Put key questions on post-its)

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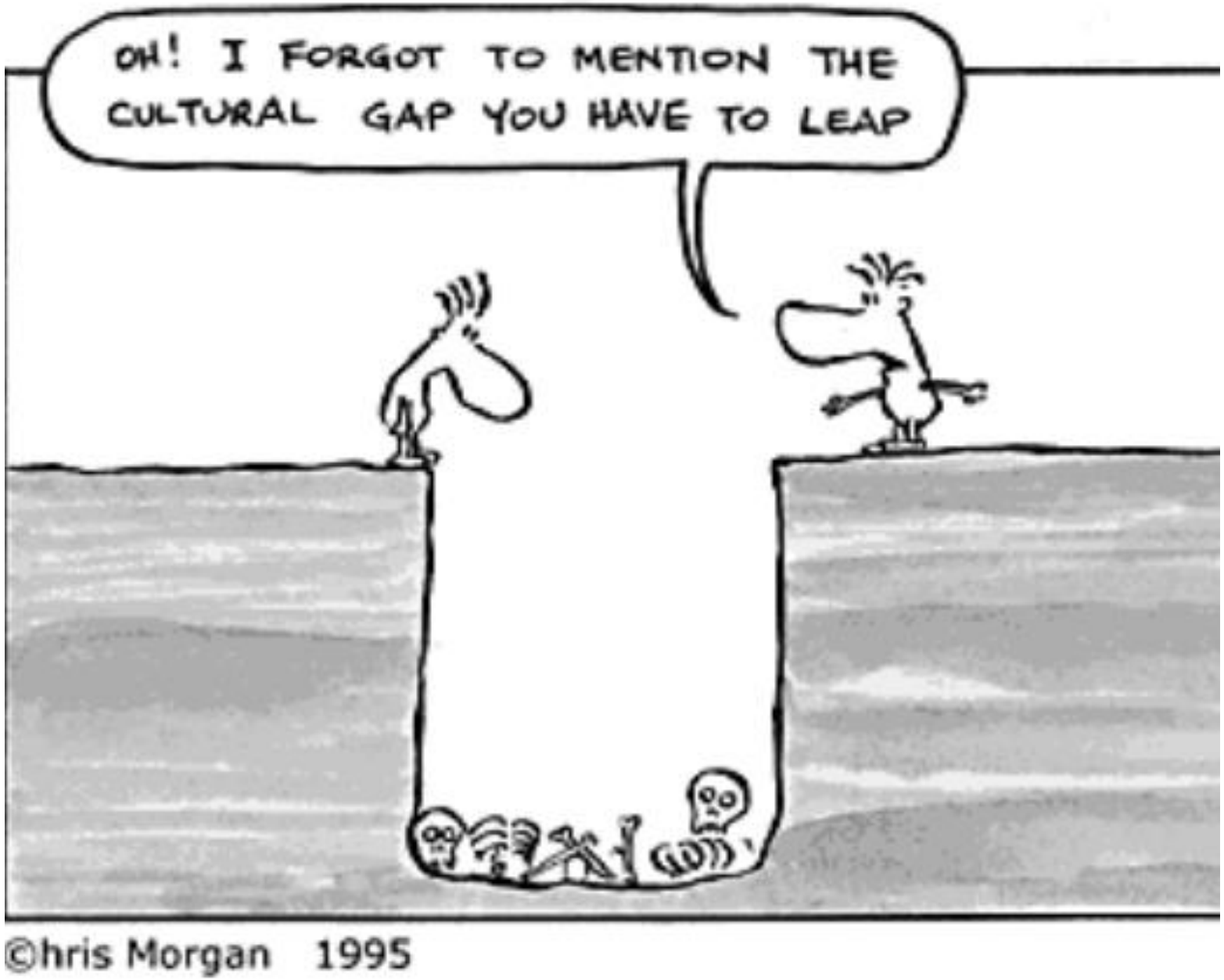


How and why events or behaviours occur in complex settings where context is important to understanding

Qualitative paradigm		Quantitative paradigm
How and why events or behaviors occur in complex settings where context is important to understanding: *Examples: How do a diverse student body and faculty affect teaching and learning? How does a resident make the transition to attending physician? What characterizes the phenomenon of a mentor–mentee relationship?*	**Nature of the research question**	How many, how often, what level, and what direction of relationships between defined variables in settings that can be decontextualized: *Examples: What is the relationship between student grades and graduation rates? What type and amount of monetary incentive or financial reward affects a medical student's specialty choice?*
Inductive by researchers (e.g., normative or transcribed text analyzed thematically for patterns)	**Nature of data and analysis**	Deductive by statistics (e.g., data and patterns analyzed through statistical means)
• Case study: An in-depth study of a particular case, which can be descriptive, explanatory, or exploratory • Ethnography: Research intended to provide descriptions of systems, processes, or phenomena within their specific context; stems from anthropology • Grounded theory: A theory developed based on the examination of data (rather than applying a predetermined theory) • Historiography: Research directed at the study of a past event, issue, or problem that uses information from the past • Phenomenology: The study of individuals' perspectives on particular phenomena • Action research: A reflective and team-based approach led by those involved in solving a particular problem • Mixed methods: A combination of quantitative and qualitative approaches including triangulation design, embedded design, explanatory design, and exploratory design	**Types of designs**	• Experimental: The researcher manipulates all variables including the assignment to treatment and control groups in order to discern causality • Quasi-experimental: Research using an experimental variable with groups not formed through random assignment or selection • Surveys: Measurement procedures that involve asking questions of respondents • Mixed methods: A combination of quantitative and qualitative approaches including triangulation design, embedded design, explanatory design, and exploratory design
Normative data from interviews, documents, focus groups, and/or observations	**Data sources**	Ordinal or cardinal data from surveys, financial reporting, census reports, test scores, demographics, and/or observations
• Thematic analysis • Content analysis • Analysis of frequency	**Analytic techniques**	• Descriptive statistics • Regression • Regression discontinuity • Hierarchical linear modeling
• Internal validity (e.g., through triangulation, member checking, coding check) • External validity (e.g., through representativeness check) • Reliability (e.g., through chain of evidence and interrater reliability check)	**Assessment of rigor**	• Internal validity (e.g., through study design and procedures) • External validity (e.g., through criterion measurement) • Reliability (e.g., through test–retest, internal consistency)

How many, how often, what level, and what direction of relationships between defined variables in settings that can be decontextualized

Castillo-Page L, Bodilly S, Bunton SA (2012) "Understanding Qualitative and Quantitative Research Paradigms in Academic Medicine", *Academic Medicine*, 87 (3): 386.

Quantitative versus Qualitative Research

Deductive and inductive reasoning

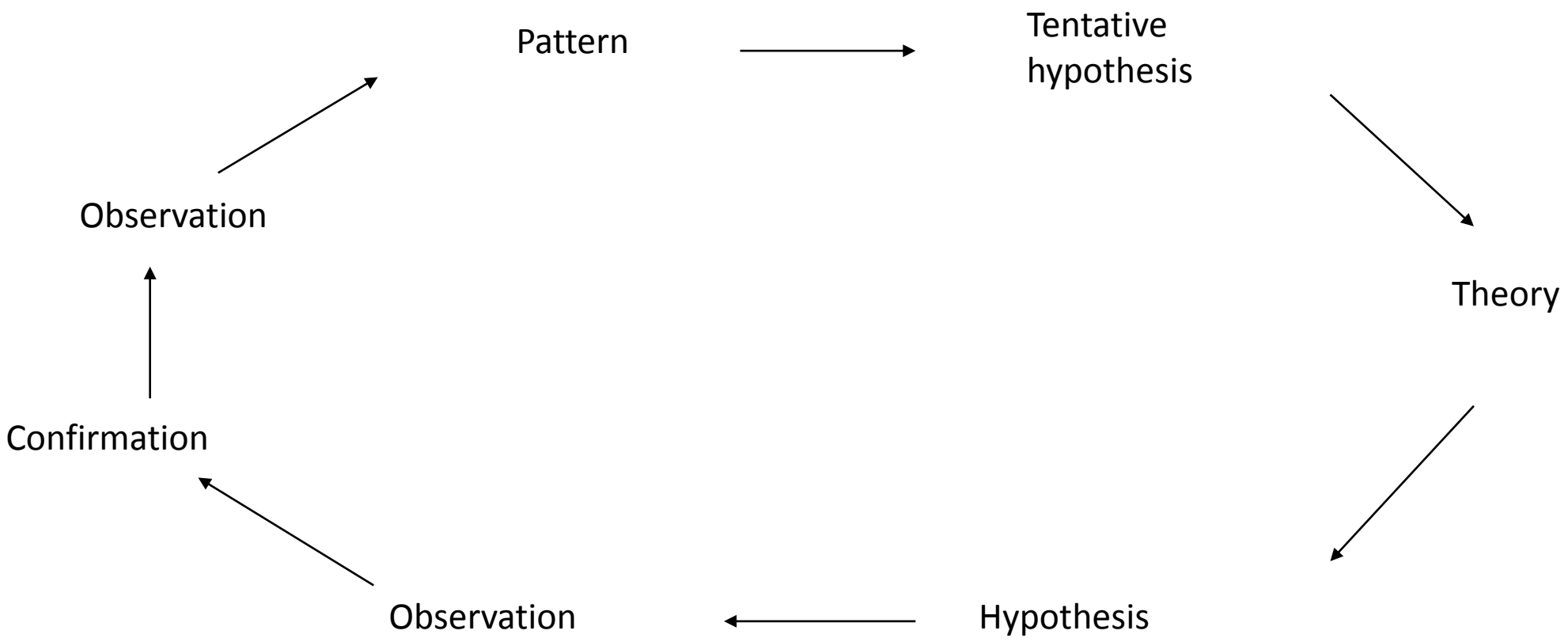
Deduction (typically quantitative):

Theory → Hypothesis → Observation → Confirmation

Induction (typically qualitative):

Observation → Pattern → Tentative hypothesis → Theory

Combining inductive and deductive approaches



Questions to help evaluate the validity of qualitative research

- **Is the sample used in the study appropriate to its research question?**

Purposive – who is more important than how many. Transparency: reasoning, background. Data saturation.

- **Is the data collected appropriately?**

Appropriate methods for the research question. Clearly explained. Systematically conducted. Thick description (context). Triangulation between several different methods and/or participants.

- **Is the data analysed appropriately?**

Clear, systematic analysis appropriate to data and approach (not quantified).

- **Can the conclusions be transferred to wider settings?**

Generation/furthering of theory. Use of relevant wider literature (e.g. topic/phenomena, method, region). What does it add to existing work and understandings? Implications and applicability (e.g. policy).

- **Does the study adequately address potential ethical issues, including reflexivity?**

Recognition of impact of researcher (presence, power, association, etc.). Negotiated consent and co-creation of data. Confidentiality and anonymity.

- **Overall: is what the researchers did clear?**

Transparency and reason. Clear descriptions of what done, how and why. Nuances.

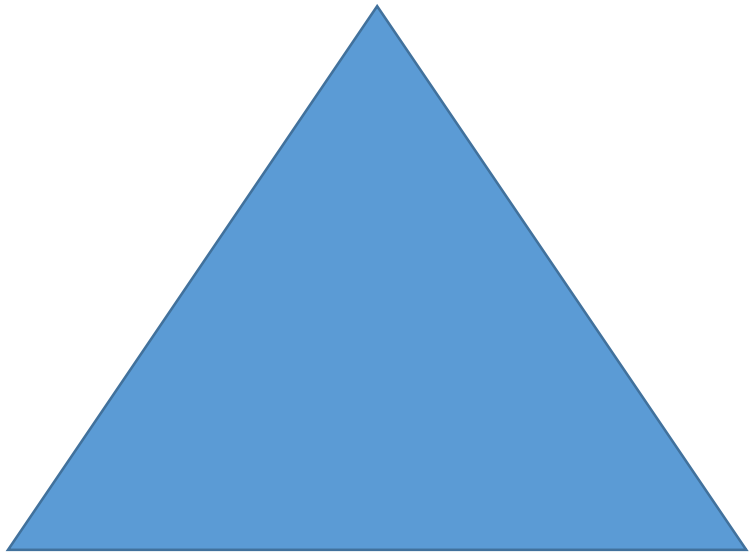
Adapted from: Kuper A, Lingard L and Levinson W (2008) “Critically appraising qualitative research”, *The BMJ*, 337: 687-689.

Data collection approaches

- In-depth interview
- Semi-structured interview
- Direct observation / Participant observation
- Focus groups
- Key informant interview (could be IDI or semi-structured)
- Highly structured (surveys, not usually used in qual research)
- Field memos

Considerations:
Relationships and power dynamics
Reflexivity

Research participants



Research assistants / Translators

Researchers

Why use qualitative research methods?

- Many complex research problems (especially food) require it
- Fuller picture of complex problems
- Adds depth to quantitative research (Q^2)
- Accessibility
- Capturing participant's point of view
- Potential for genuine participation

Considerations and Challenges

- Unearths inconvenient and messy truths
- Time, logistics, and resources
- Sampling and representativeness
- Replicability
- Inadequate to capture magnitude of phenomena

- But… mixed methods can address many of these and combined, both methods can strengthen the other

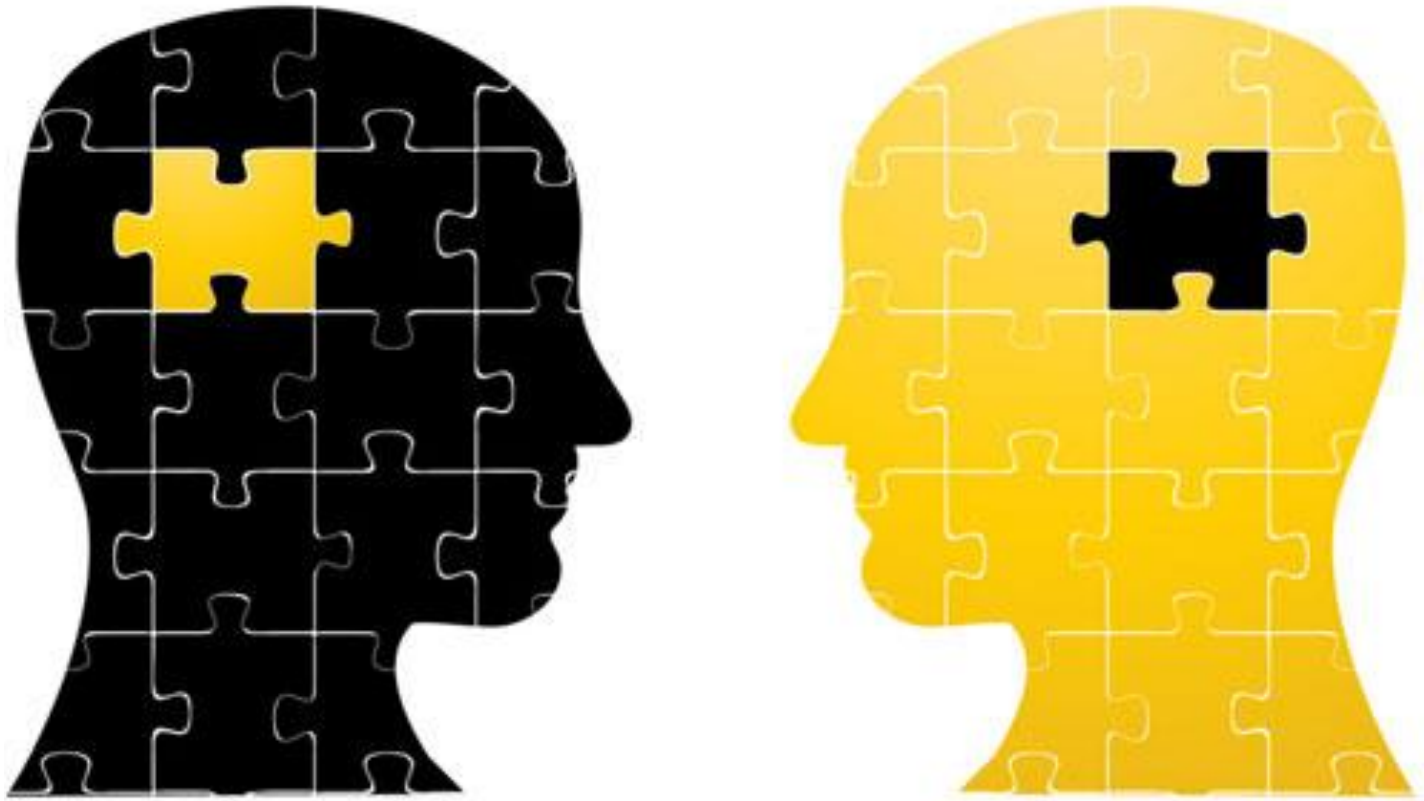
Questions?

Clarifications?

Activity One

Interviewing

To understand a person's world, talk to them!



Qualitative interviewing

- Conversations on life in a professional form
- Has structure and purpose; beyond the spontaneous
- Careful questioning… and listening! Really hear the responses.
- Interviewees are given space to expand accounts of their experiences and feelings
- No common procedure; interviewing as a craft and an art….
- …. but several common processes and stages to the method.

Resources: https://www.ukdataservice.ac.uk/teaching-resources/interview

Types of interview

- Structured interviews
  - Asking the same set of standardised questions
  - Getting responses in predetermined categories to (dis)confirm hypotheses
  - Useful to make comparisons between responses from different interviewee
- Semi-structured interviews
  - Allowing for the exploration of emergent themes and ideas
  - Scope for pursuing and probing for novel, relevant information
- Unstructured interviews
  - Not simply answering the questions posed by the interviewer
  - Freedom to tell their own story or biography
  - concerned with finding meanings, and attempts to develop a detailed biography with the interviewee

Semi-structured interviews

- Knowledge is gained from the interviewee's view point
- Research data comes from the interaction between interviewee and researcher
- Need to interpret information in context
  - Location of interview; degree of ease; how questions were asked and answered
- Key skills:
  - Remaining open to emerging issues and surprises, and following these… and then getting back to your interview schedule
  - Having knowledge about the interview topic to allow broad scope… but not imposing your own assumptions or leading the responses

Balance….

Types of interview questions

- Degree of focus
  - ‘Grand tour’: General overview
  - Specific: ‘please tell me more about…’
- Degree of open-endedness
  - Open-ended: ‘How do you feel about…?’ Used to discover perceptions
  - Closed: ‘Do you agree with the idea that…?’ Used to confirm findings
- Types of information
  - Descriptive: ‘Could you tell me what happened when…?’
  - Structured: ‘What factors do you think are involved in…?’
  - Contrast: ‘What changes have you seen since…?’
  - Clarification: ‘Can you clarify what you mean by…?’
  - Follow-up: ‘Can you tell me more about…?’

Interview procedures

- Establishing relationships: Putting the interviewee at ease
  - Communication of aims, asking permissions, sensitivity to body language…
- Using the interview schedule
  - This is generally a reminder, not a list; be flexible and iterative…
  - Know your schedule well, so you don’t have to refer to it too often
- Following leads
  - These might be body language or verbal; be sensitive but get below the surface and uncover new ideas and areas
- Capturing data
  - Most researchers use audio recorders for later transcription
  - Depending on the context, taking notes might be appropriate

Exercise 1

Research question: **Why do people make certain food choices?**

Create an interview schedule to address this question

- Work alone (for now)
- Develop 5 interview questions
- Think about how to frame the questions, potential for misunderstandings
- Frame your questions so they explore rather than lead
- Include a range of types of interview questions, not just facts…

Lunch!

Exercise 2

Research question: **Why do people make certain food choices?**

Undertake an interview to pilot your interview schedule

Round 1:

- Get into pairs:
  - one is the interviewer, the other interviewee
- Ask/answer the 5 interview questions from the schedule
- Do not veer from the 5 questions (no additional follow-up questions, etc.)

Exercise 2

Round 2:

- Same pairs and interviewer/interviewee
- Ask the first question from your schedule
- Turn over/close your schedule so that you cannot see the remaining questions
- Listen carefully to the answers of your interviewee and ask follow-up questions based purely on their responses

Remember to listen and follow up:

- Listen for emotions, perceptions, and ‘don’t knows’
- Encourage further, deeper responses, e.g. *that’s interesting, can you tell me more about that/why that is…*
- Interviewee: While answering, think about how well the questions are working, what is harder or easier to answer or engage with…

Exercise 2

Feedback, Reflection and Discussion

- In your pairs, compare the experiences of the two interview rounds
- How did it feel as the interviewer/interviewee?
- How did it differ between the two? How did you feel?
- What kind of data did you capture?

- 5 mins open discussion with room

Activity Two

Coding

Qualitative Data Analysis

- Most qualitative understanding entails textual analysis
- Though there are other visual ways of capturing qualitative information

Data analysis

Coding

- Open coding: read data line-by-line to identify and formulate any and all ideas, themes, or issues they suggest, no matter how varied and disparate

- Focused coding: fine-grained, line-by-line analysis on the basis of topics that have been identified as of particular interest

Developing theory

1. Theoretical memos

- Elaborate and integrate the analytical categories you identify
- Connections to ideas you are familiar with already
- Note your own reactions and judgments
- Further questions arising from the data

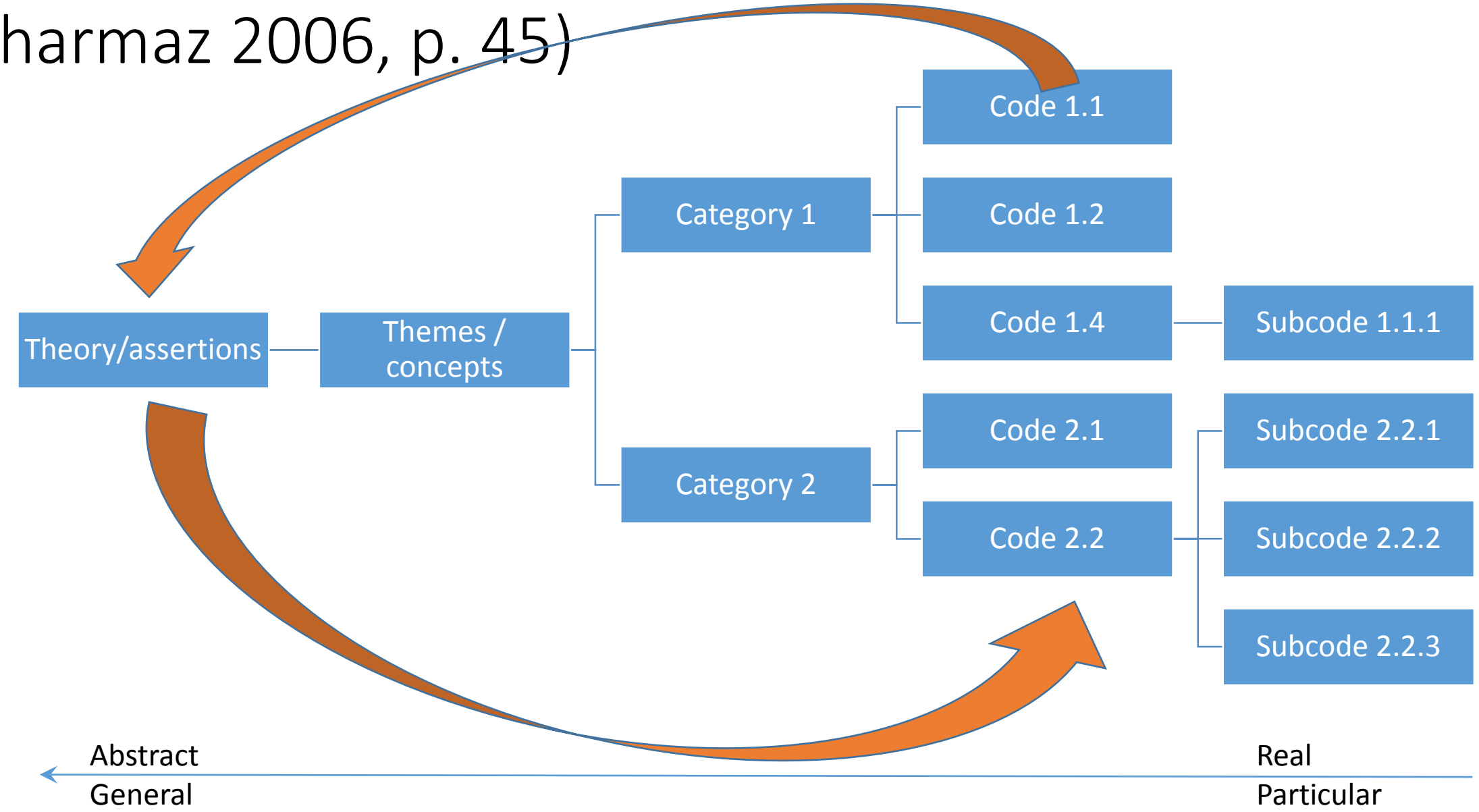
2. Theoretical propositions

- an *explanation* of an aspect of social life that has been observed and recorded

Codes, Categories and Themes

- A code is a word or short phrase that systematically assigns a summative or essence-capturing idea or concept to the data;
- Different approaches to coding:
  - Starting with a code list and finding phrases or paragraphs in the data that fit
  - Starting with the data and creating codes to summarize or capture the interesting buts of the data as you read
  - *in vivo* coding: a word or phrase from the data becomes the code
- Categories are groups or families of codes that share some characteristic or are logically related
- Themes: abstract analytical or logical outcomes from codes and categories (patterns, trends, concepts)

Coding generates the bones of your analysis…integration will assemble those bones into a working skeleton (Charmaz 2006, p. 45)



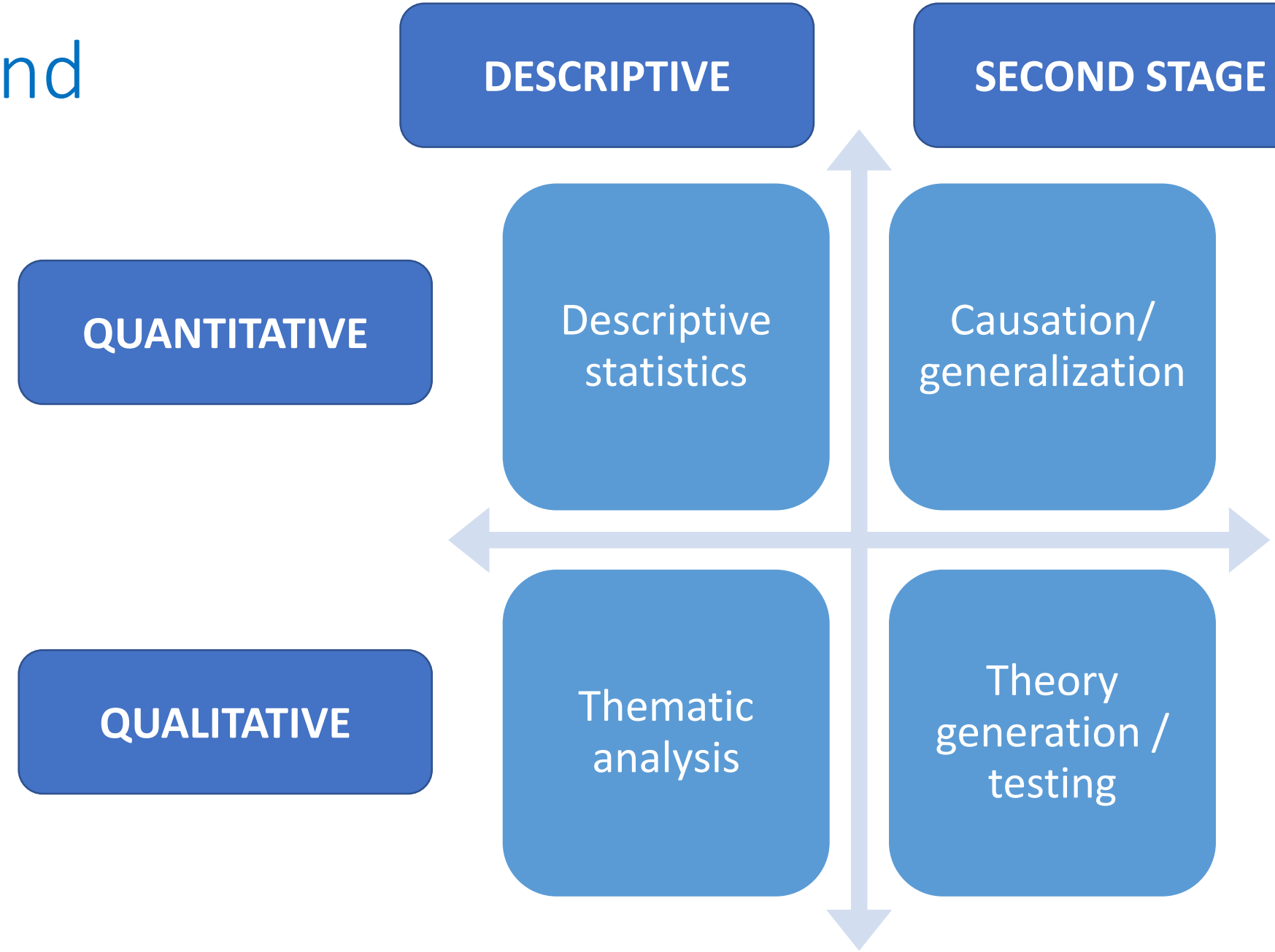
How can data analysis software help?

- NVivo is the most widely used programme for qualitative data analysis
- It is a data management tool
- It allows you to code, categorise, search and retrieve data
- But… it cannot analyse the data or generate theory. This must be done by you!

Exercise 3: Coding

- Read through the transcript.
- Start with open coding. Write a word(s) that captures each concept that you read. These are your codes
- From your codes, look for patterns. Organize important codes into categories: 3-5 words or phrases that you think are interesting, summative or otherwise relevant to highlight.
- Highlight/circle text and note the corresponding code. As you go, as new codes arise, you can code for those too.
- Discuss your coding with your group. Where are the different or the same?

Qual and Quant



Questions? Clarifications?

Conclusions

Thank you!

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- Re-cap
- Questions?

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Elizabeth Hull, SOAS-LCIRAH

www.lcirah.ac.uk

Further reading

Qualitative methods – General Core Books

- Charmaz K (2014) *Constructing Grounded Theory: A Practical Guide through Qualitative Analysis*. SAGE Publications.
- Chrzan J & Brett J (2017) *Research Methods for Anthropological Studies of Food and Nutrition*. New York, Oxford: Berghahn.
- Denzin NK & Lincoln YS (eds.) (2000) *Handbook of Qualitative Research*. London: Sage.
- Lune H & Berg B L (2016) *Qualitative Research Methods for the Social Sciences*. Pearson.

Further reading

<u>Useful Articles/Chapters</u>

- Braun V & Clarke V (2006) “Using thematic analysis in psychology”, *Qualitative Research in Psychology,* 3 (2): 77-101.
- Denzin NK & Lincoln YS (eds.) (2000) *Handbook of Qualitative Research*. London: Sage.
- Lune H & Berg B L (2016) *Qualitative Research Methods for the Social Sciences*. Pearson.
- Mays N & Pope C (1995) “Rigour and qualitative research”, *The BMJ*, 311: 109-12.
- Ritchie J & Spencer L (1994) “Qualitative Data Analysis for Applied Policy Research”, in Bryman A & Burgess B (Eds) *Analyzing Qualitative Data*. Routledge, London. Pages 305-329.

<u>Research Ethics</u>

- https://www.theasa.org/ethics.shtml

Title

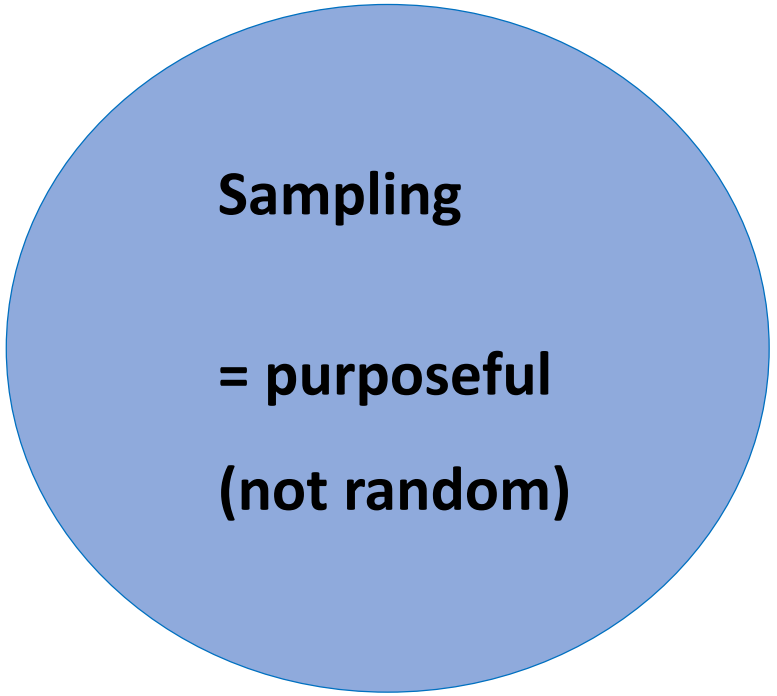
- Content
  - Content
- Content

Focus Groups

- Semi-structured group interview (average 6-10 people)
- Focused on a particular topic or issue
- Typically standardized questions, though freedom for open discussion
- Can be repeated (for different demographics, or increased representation)
- Good for exploring new research areas (scoping), or where observations are difficult
- Good for getting range of perspectives, especially from marginalised groups
- Can be good for exploring sensitive topics (safety of group)
- Produce large quantity of targeted data in short time
- Can enable comparisons
- Often used in combination with other methods, or to inform other research
- Be aware of group dynamics
- Require skilled moderator

Main Methods

- Observation
- Participant observation
- Interviews (structured, semi-structured, unstructured)
- Surveys/questionnaires (open questions)
- Focus groups
- Oral histories/life stories
- Case studies
- Archival and other documentary sources
- Photography and video
- Various participatory/participant-led



Research ethics

- Protecting research participants and honouring trust
- Anticipating harm
- Avoiding undue intrusions
- Negotiating informed consent
- Right to confidentiality and anonymity

Why use qualitative research methods?

- Accessibility
- Reduces “reactivity”
- Increases relevance of survey questions
- Creates intuitive understanding
- Fuller picture of complex problems
- Explanations for inconsistent data
- Many complex research problems (especially food) require it

Drawbacks

- Time-consuming (resources)
- Time scales can be incommensurable (ongoing)
- Sampling and representativeness (select small scale)
- Consistency and replicability
- Unearths inconvenient and messy truths
- No quick-fix solutions
- Different methodologies make it a challenge to work across disciplines

- But… mixed methods can address many of these and combined, both methods can strengthen the other

Exercise 3

Carry out open coding analysis of the interview transcript

For open coding, remember…

- Identify analytical categories within the data.

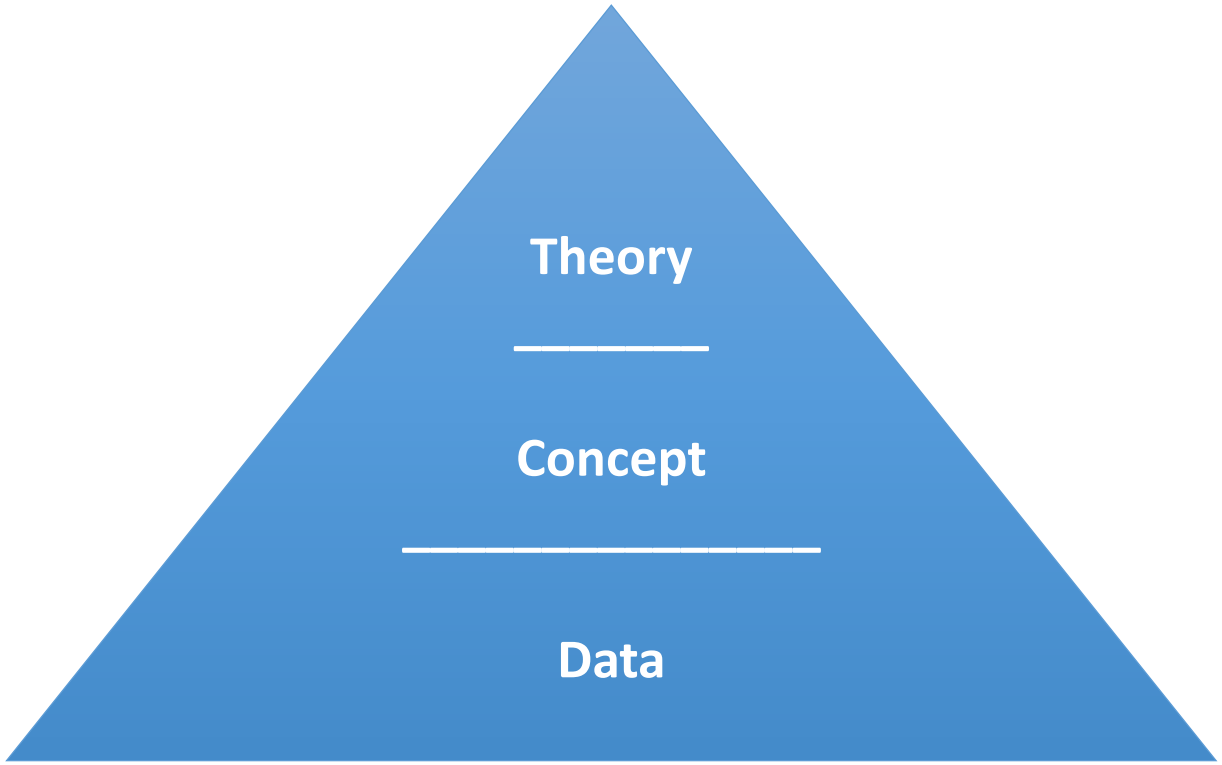
e.g. words, concepts or explanations that the interviewee uses to account for what is happening

- Avoid looking for your own pre-conceived concepts or hypotheses.

e.g. do not assume that a category such as ‘gender’ is relevant until it emerges in the data. The more frequently it appears in the data, the more likely it is to hold significance

- Be attentive to possible problems of translation.
- The questions are data. Subject them to critical inquiry.

Levels of analysis



From the specific to the general…