

# A BRIEF INTRODUCTION TO QUALITATIVE AND MIXED METHODS RESEARCH

WHAT IS EPISTEMOLOGY?  
(AND WHY DOES IT MATTER?)



e·pis·te·mol·o·gy

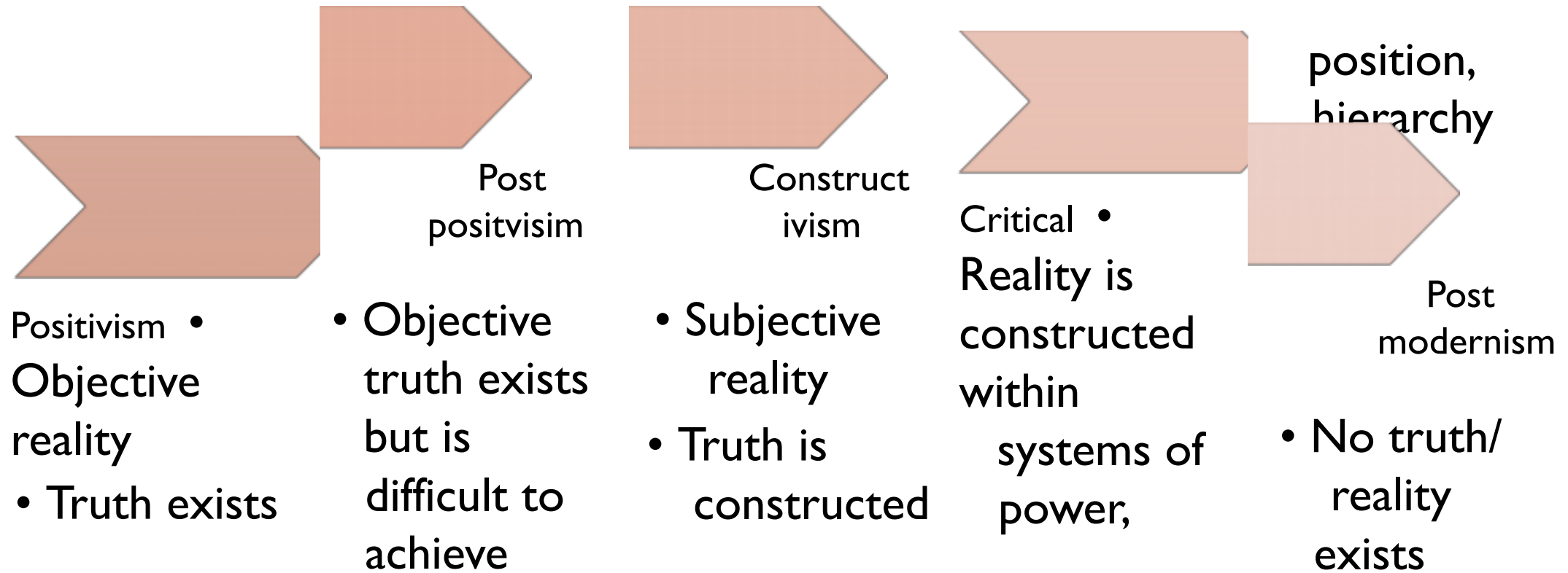
/əˌpɪstəˈmɒləʒi/

*noun* **PHILOSOPHY**

the theory of knowledge, especially with regard to its methods, validity, and scope. Epistemology is the investigation of what distinguishes justified belief from opinion.

- Ways of knowing
- Enduring debates about “knowledge” and “truth” and “objectivity”

A CONTINUUM OF EPISTEMOLOGIES



## EPISTEMOLOGICAL ASSUMPTIONS

truth

### **Constructivism**

facts are subjective and socially constructed; multiple truths

### **(Post)Positivism**

facts are objective and observable; single

Facts are value-neutral Facts are value-laden

Experimenter is independent of the facts  
(objectivity)

Experimenter is interdependent with the facts  
(subjectivity)

Experimenter is independent of the Subject Experimenter and Subject are interdependent (shared context)

Experimenter is superior to the Subject  
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Experimenter and Subject bring unique and shared knowledge

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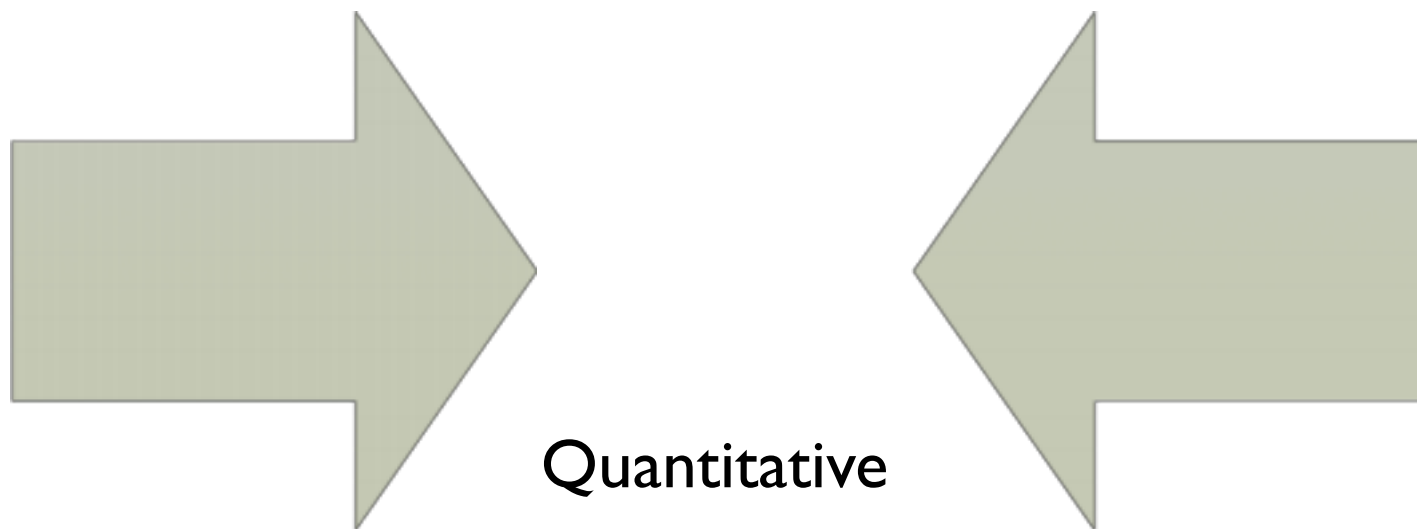
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## EPISTEMOLOGY + METHODOLOGY



Qualitative

Qualitative truth

# SELECTING A RESEARCH METHOD

- Each type of data collection and analysis requires training and certain sets of skills
- Recognizing the epistemological perspectives of each research tradition can help you situate your research
- Your method should align with your research question
  - You cannot answer a (post)positivist research question with constructivist, qualitative methods and vice versa

□ What is it you want to know?

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How do youth  
engage with their

classroom  
environments  
during STEM  
courses? Do peer  
interaction and  
teacher engagement  
differ by students'  
gender and race?

ethnography

How do parents make  
sense of their babies'  
behavioral milestones  
across developmental  
stages?

□ Observation,

□ Interviews

In which ways do college students resist  
gender stereotypes as they make sense of  
their romantic relationships?

□ Interviews, focus groups, written  
narratives

# QUALITATIVE DATA ANALYSIS STILL REQUIRES ANALYSIS

- Conducting a qualitative data analysis requires more than just describing what was said in an interview or seen in an observation
- Through inductive (ground-up, data-driven) and deductive (top down, theory-driven) analysis you can systematically and rigorously examine your data
- Analysis of findings requires *interpretation*
  - Just like in quantitative methods – you don't stop at the Results section – interpretation of the findings is key to good research

# THEMATIC ANALYSIS

- TA is one method for identifying patterns in your qualitative data (such as interview transcripts or written narratives)
- Once you have identified themes you return to the data and “code” for them, systematically identifying where and when themes come up (done in a team)
- You can then analyze and interpret what you’ve found

□ TA resources: Braun & Clarke (2006; 2013; 2019)

## CONDUCTING QUALITATIVE DATA

# ANALYSIS

- There are many QDA programs available
  - Nvivo (available to NU students)
  - ATLAS.ti
  - MAXQDA
  - Dedoose
- Coding can also be done in Excel or by hand

- How do youth engage with their classroom environments during STEM courses? Do peer interaction and teacher engagement differ by students' gender and race?

- What are the relations between students' levels of engagement with peers and teachers in 9<sup>th</sup> grade STEM classes and their grades in 11<sup>th</sup> grade STEM classes? Are these relations moderated by race and gender?

- How do parents make sense of their babies' behavioral milestones

across developmental stages?

*Based on the types of responses from these interviews, the researcher could create a quantitative scale assessing parental beliefs/ expectations about infant and toddler development.*

## RESOURCES FOR QUALITATIVE RESEARCH



- Northwestern library resource page for students doing qualitative research, including links to software:

<https://libguides.northwestern.edu/qualitativedata>

- Thematic analysis resources:

<https://www.psych.auckland.ac.nz/en/about/thematic-analysis.html>