

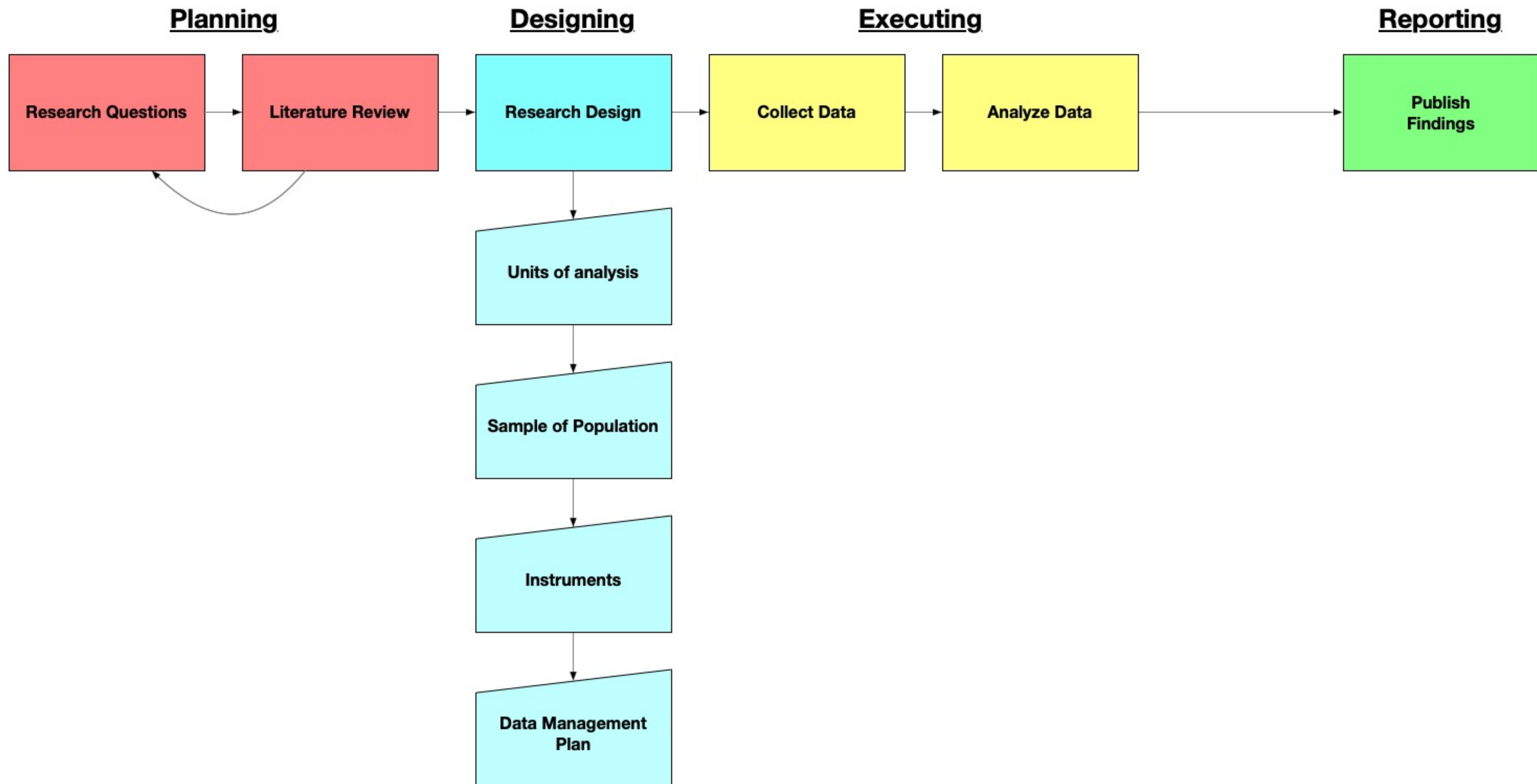
INSC 570

RESEARCH DESIGN

AGENDA

- **Class Admin**
- **Research Design Overview**
- **Break**
- **Gerring reading discussion**

RESEARCH DESIGN



Research Gap Type	Definition
Evidence Gap (Contradictory Evidence Gap)	Results from studies allow for conclusions in their own right, but are <i>contradictory</i> when examined from a more abstract point of view [Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017].
Knowledge Gap (Knowledge Void Gap)	Desired research findings do not exist [Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017].
Practical-Knowledge Gap (Action-Knowledge Conflict Gap)	Professional behavior or practices deviate from research findings or are not covered by research [Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017]. .
Methodological Gap (Method and Research Design Gap)	A variation of research methods is necessary to generate new insights or to avoid distorted findings [Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017].
Empirical Gap (Evaluation Void Gap)	Research findings or propositions need to be evaluated or empirically verified [Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017].
Theoretical Gap (Theory Application Void Gap)	Theory should be applied to certain research issues to generate new insights. There is lack of theory thus a gap exists [Müller-Bloch & Kranz, 2014]. [Jacobs, 2011; Müller-Bloch & Kranz, 2014; Miles, 2017].
Population Gap	Research regarding the population that is not adequately represented or under-researched in the evidence base or prior research (e.g., gender, race/ethnicity, age and etc). [Robinson, et al, 2011].

Source: Robinson, Saldanha, & McKoy (2011); Müller-Bloch & Kranz, (2015); Miles, (2017).

RESEARCH QUESTIONS

TYPES OF QUESTIONS

- **Descriptive** - What are the qualities most valued in a Mayoral candidate?
 - Gathering and describing what makes up important variables
- **Relational** - When do political beliefs impact voting habits? (internal)
- **Comparative** - How do supporters of Lorena Gonzales differ between District 2 and 3? (external)
- **Causal** - How do yard signs impact voter turnout in Seattle's 2021 Mayoral election?
 - Test one or more variables (yard sign vs non-yard sign + voter turnout)
 - X happens / is directly influenced by Y

IMPLICATIONS OF DIFFERENT ADVERBS

- **How** - Procedural question that seeks to understand ways that something occurs, has unfolded over time, or the chain of decisions / logic / beliefs that lead from one state to another (e.g. How do political beliefs of immigrants to the USA change after resettlement?)
- **What** - Will identify, name, and describe variables (people, their characteristics, etc) as well as potential relationships between those variables
- **Where** - geographic focus
- **When** - temporal focus
- **Why** - Explanatory question that seeks to use previous knowledge and / or new data for causal reasoning

WRITING A RESEARCH QUESTION

Topic	FOIA
...and / Or	Non-Profits
... place, time, population, or institution	Seattle
Goal	Descriptive
Question	What records do Non-Profit groups in Seattle request using FOIA ?

WRITING A RESEARCH QUESTION

Topic	
...and / Or	
... place, time, population, or institution	
Goal	
Question	

UNITS OF OBSERVATION / ANALYSIS

- **Unit of analysis:** What will be studied as representative of a phenomena
 - Cliques in High School cafeterias (tables)
- **Unit of observation:** What will be observed (collected, interrogated, Interviewed etc)
 - Individuals that sit at particular tables in the cafeteria as representing a clique

RESEARCH QUESTIONS +
ONTOLOGY +
EPISTEMOLOGY

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LECTURE

Agenda

Research Paradigms

- Ontology
- Epistemology
- Methods

Dominant Paradigms in LIS

- Positivism
- Constructivism / Subjectivism
- And more...

Research Paradigm

- **Paradigm** - Group of people that share a worldview - generally about what the world consists of and what is valid
- **Research Paradigm** - Group of researchers that agree about what constitutes reality and how we gain valid or true knowledge of reality
 - Same methods, same journals, same professional identities, etc.



Kristen Uroda for NPR - Read this amazing story here <https://www.npr.org/2020/02/28/810035026/short-wave-celebrates-black-excellence-in-science>

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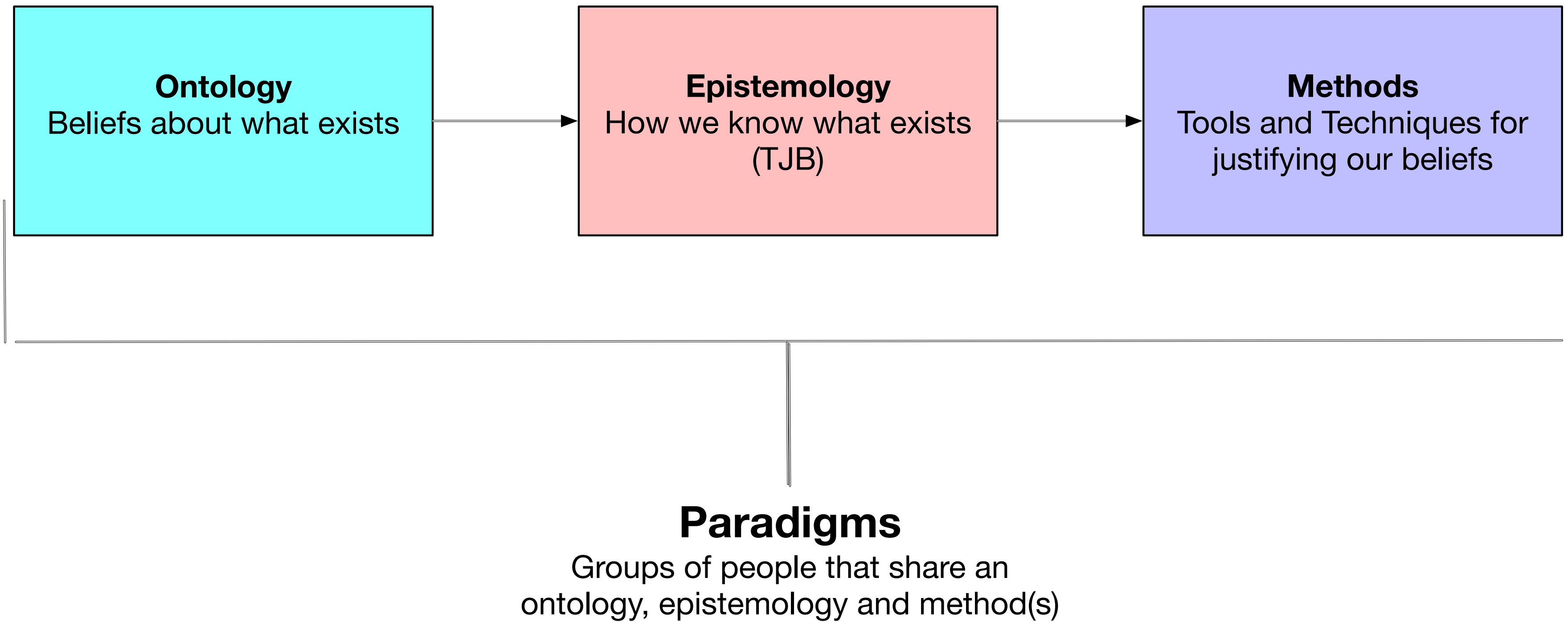
Ontology

- **What** constitutes reality? (Or, what is valid within a paradigm of knowledge)



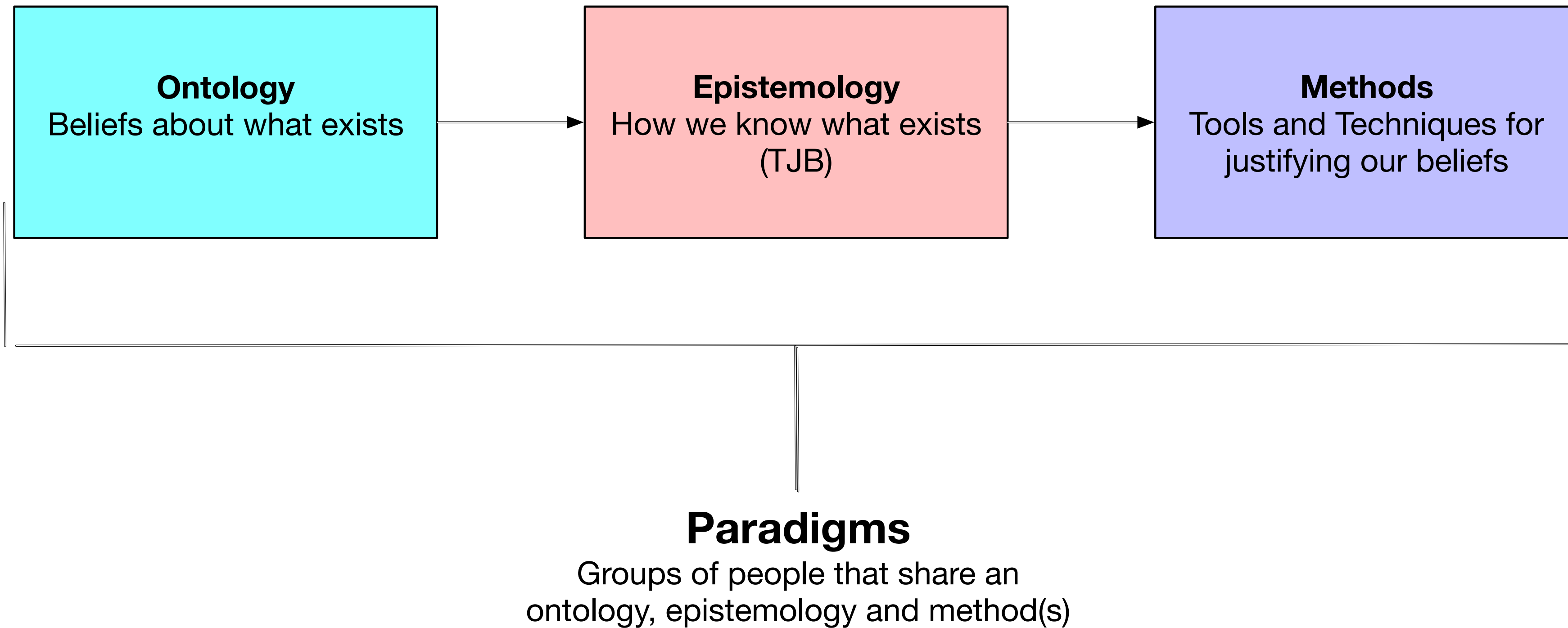
Epistemology + Methods

- **How** we know what we know
- Knowledge = True + Justified + Beliefs
 - Believe something is the case; Justified in our belief; The belief turns out to be true
- In social science research we try to gather justification for our beliefs using systematic **methods** of data collection and analysis
- Epistemology and methodology are tightly linked



Dominant paradigms in Information Science

Research Paradigm	Ontology Reality	Epistemology Knowledge	Methods Tools + Techniques
Positivism	There is one and only one reality / truth	Reality can be measured or inferred through logic	Surveys, data scraping, statistics (usually quant)
Constructivism	Multiple truths each of which is socially constructed	Reality is interpreted and used to give meaning(s) to events, behaviors, etc.	Surveys, observation, interviews, archival analysis (usually qual)



Bias and Research Validity

All research is inherently biased.

By being transparent in our intent and method we reduce bias.

We also reduce bias through the concept of validity

- **Internal validity** is about the design and rigor of our method
 - Follow community norms, best practices, and ethical standards
- **External validity** is about the representativeness of our findings.
 - Check with participants; statistical tests that are replicated

BREAK