

SOCIOLOGICAL RESEARCH PART I

If you've got the truth you can demonstrate it. Talking doesn't prove it.

Robert A. Heinlein

THE GOAL OF SCIENCE

- explain why something happens
- make generalizations
- look for patterns
- predict what will happen
- move beyond common sense
- what everyone knows may not be true
- move beyond guesswork



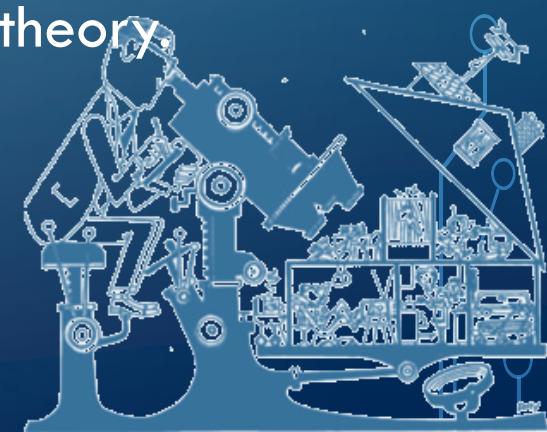
SOCIOLOGICAL THEORY

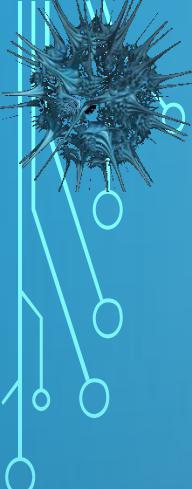
- ...set of statements that seeks to explain a range of human behavior and a variety of social and societal events
 - how and why specific facts are related
 - integrates data and information
 - helps decide kinds of research questions to ask
 - confirmed, modified or rejected through research



SOCIOLOGICAL THEORY

- Sociologists develop theories to explain how individual behavior can be understood within a social context.
- Effective theories should explain and predict.
- Neither research nor theory can stand alone.
 - Theories must be tested through research.
 - Research findings must be explained with theory.



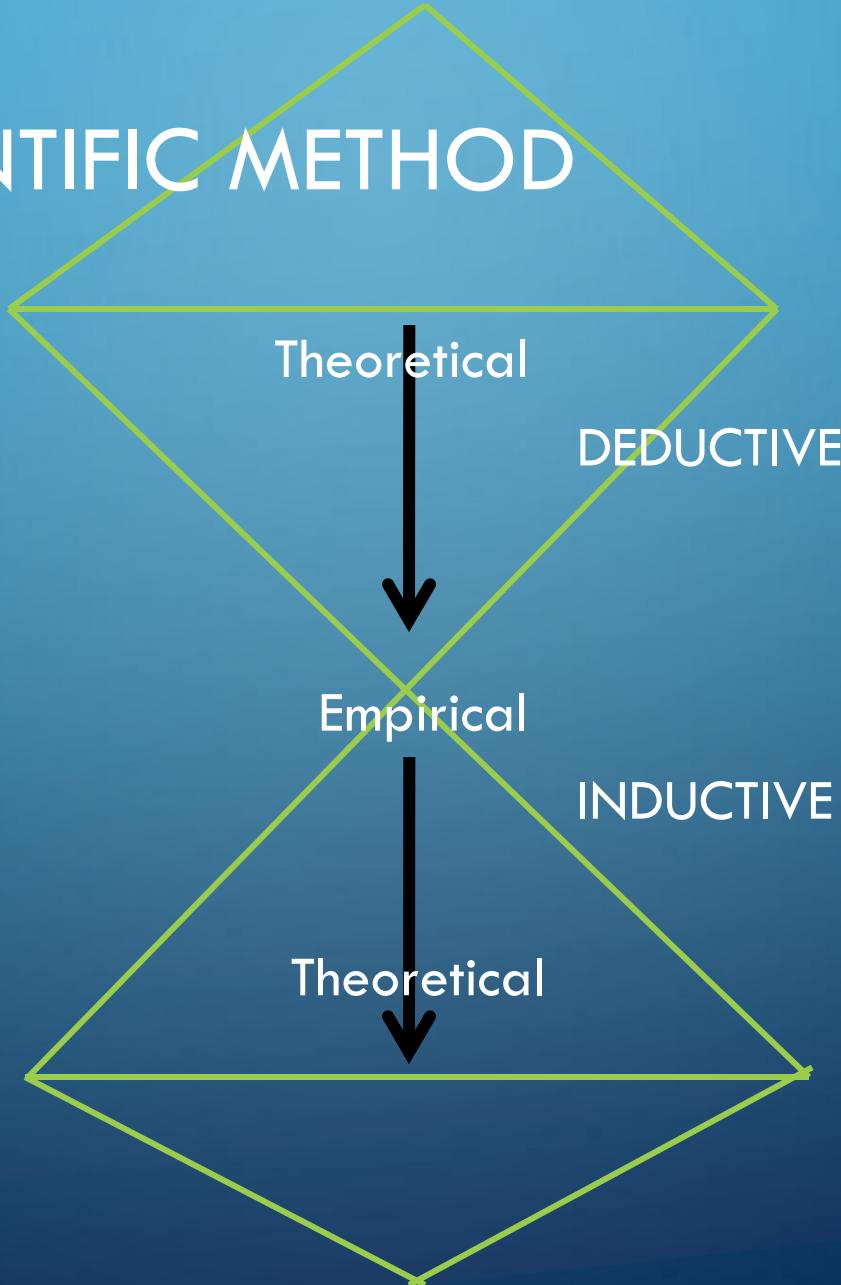


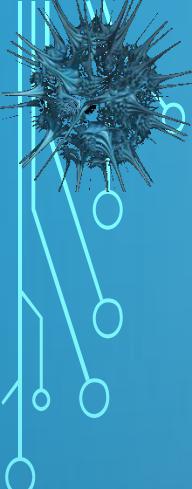
SOCIOLOGICAL THEORY



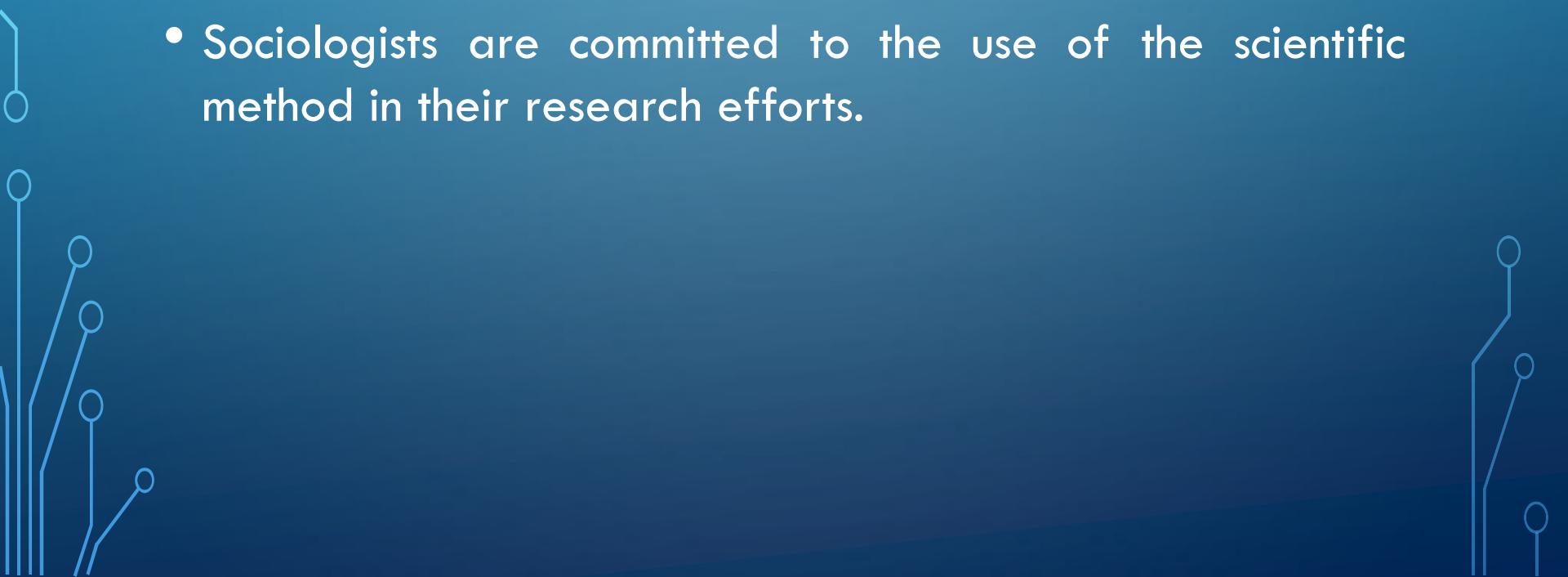
- theory: Students probably have old cars because they're young and don't have a lot of money.
- research: Systematically walk around parking garage and note year, make and model of the cars. Observe that the cars in the student spots are much newer than those in the faculty slots.
- revise theory

THE SCIENTIFIC METHOD



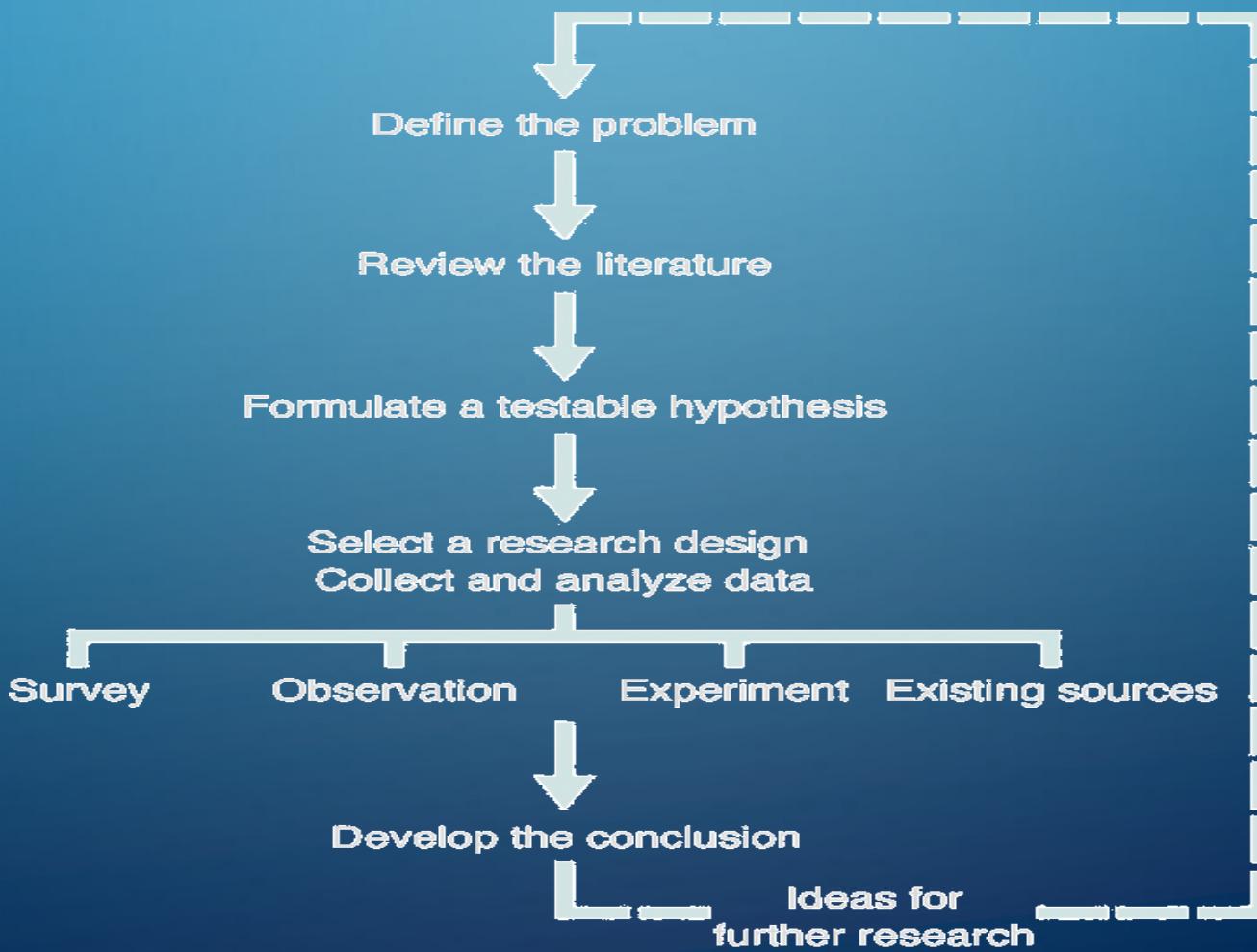


THE SCIENTIFIC METHOD



- ...systematic, organized series of steps that ensures maximum objectivity and consistency in researching a problem
- Sociologists are committed to the use of the scientific method in their research efforts.

THE SCIENTIFIC METHOD



THE SCIENTIFIC METHOD: DEFINE THE PROBLEM

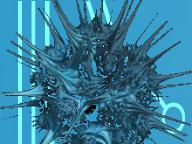
- State as clearly as possible what you hope to investigate.
- Whenever researchers wish to study abstract concepts, such as intelligence or prejudice, they must develop workable operational definitions.
- **operational definition:** explanation of abstract concept that is specific enough to allow a researcher to measure the concept



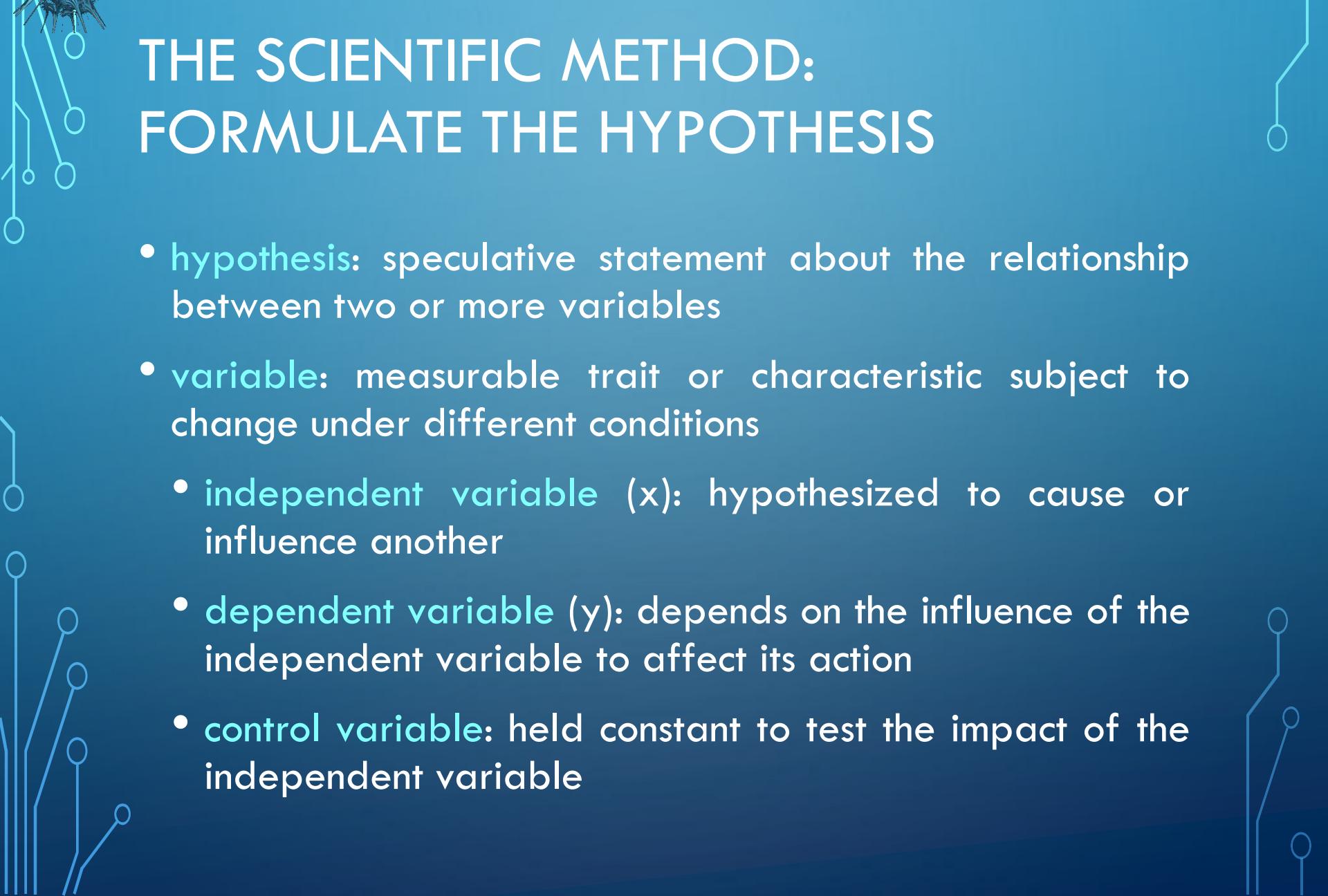
THE SCIENTIFIC METHOD: REVIEW THE LITERATURE

- A lit review refines the problem under study.
 - clarifies possible techniques to be used in collecting data
 - eliminates or reduces avoidable mistakes
- literature: relevant scholarly studies and information that pertain to subject under research



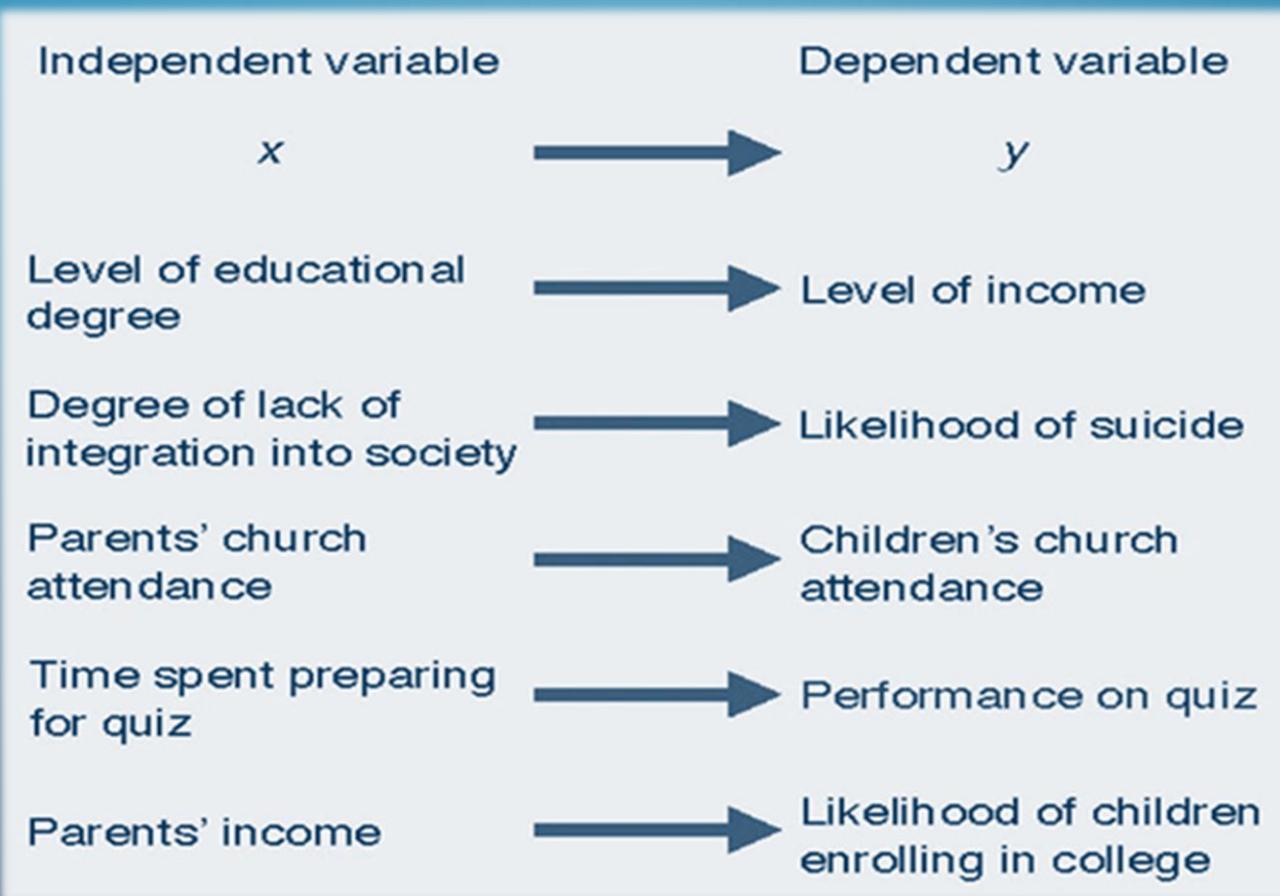


THE SCIENTIFIC METHOD: FORMULATE THE HYPOTHESIS

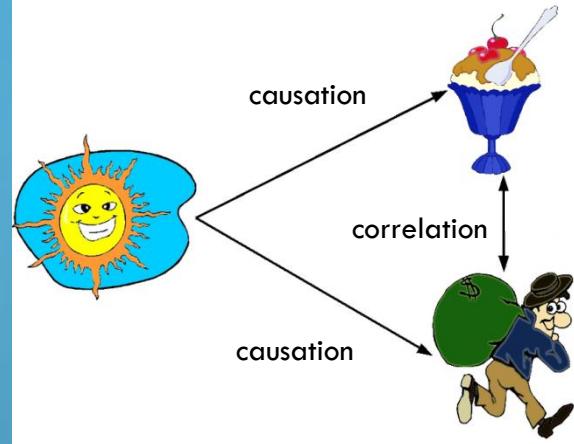


- **hypothesis:** speculative statement about the relationship between two or more variables
- **variable:** measurable trait or characteristic subject to change under different conditions
 - **independent variable (x):** hypothesized to cause or influence another
 - **dependent variable (y):** depends on the influence of the independent variable to affect its action
 - **control variable:** held constant to test the impact of the independent variable

THE SCIENTIFIC METHOD: FORMULATE THE HYPOTHESIS



THE SCIENTIFIC METHOD: FORMULATE THE HYPOTHESIS



- **causation:** involves relationship between a variable and a particular consequence ... when x does this it causes y to do that
- **correlation:** exists when a change in one variable coincides with a change in another ... x does this and y does that at the same time
- **Correlation does not necessarily indicate causation.**
 - **example:** Both ice cream consumption and crime increase in the summer months but that doesn't mean that ice cream consumption causes crime.

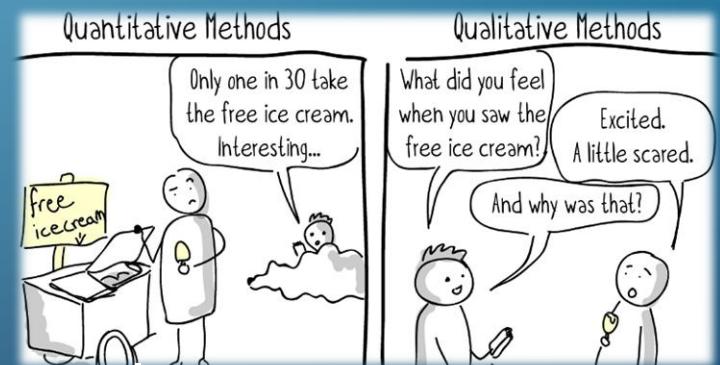
THE SCIENTIFIC METHOD: SELECT A RESEARCH DESIGN

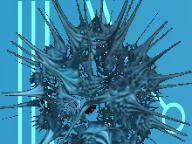
- Sociology is dependent on reliable data and logical reasoning.
- Sociologists try to ascertain facts by conducting empirical investigation: direct and indirect observation or experience.
- Sociologists ask many types of questions including comparative questions and historical questions.



THE SCIENTIFIC METHOD: SELECT A RESEARCH DESIGN

- quantitative research methods
 - collect and report data primarily in numerical form
 - uses statistics and numbers
 - emphasis on precise measurement
- qualitative research methods
 - rely on what is seen in field and naturalistic settings
 - focus often on small groups and communities
 - emphasis on observing, describing and interpreting behavior

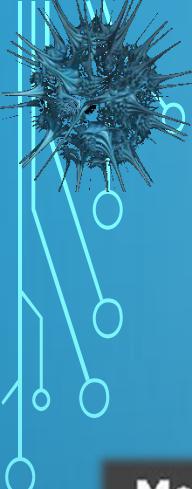




THE SCIENTIFIC METHOD: SELECT A RESEARCH DESIGN



- research design: detailed plan or method for scientifically obtaining data
 - surveys, questionnaires and interviews
 - observation and participant observation
 - experiments
 - secondary data analysis
- 



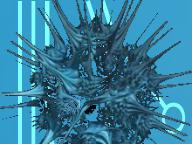
THE SCIENTIFIC METHOD: SELECT A RESEARCH DESIGN

Method	Examples	Advantages	Limitations
Survey	Questionnaires Interviews	Yields information about specific issues	Can be expensive and time-consuming
Observation	Ethnography	Yields detailed information about specific groups or organizations	Involves months if not years of labor-intensive data gathering
Experiment	Deliberate manipulation of people's social behavior	Yields direct measures of people's behavior	Ethical limitations on the degree to which subjects' behavior can be manipulated
Existing sources/ Secondary analysis	Analysis of census or health data Analysis of films or TV commercials	Cost-efficiency	Limited to data collected for some other purpose

RESEARCH DESIGNS: SURVEYS, QUESTIONNAIRES AND INTERVIEWS

- **surveys:** studies, generally in form of an interview or questionnaire, that provide sociologists with information about how people act or think
- Important to ask **neutral questions** rather than leading or slanted questions.





RESEARCH DESIGNS: SURVEYS, QUESTIONNAIRES AND INTERVIEWS

- **questionnaire:** researcher uses printed or written form to obtain information from a respondent
 - inexpensive
 - good for large samples
 - self-administered
 - loss of researcher control

RESEARCH DESIGNS: SURVEYS, QUESTIONNAIRES AND INTERVIEWS

- interview: researcher obtains information through face-to-face or telephone questioning
 - high response rate
 - researcher can probe beyond a questionnaire ... structured interviews ... open-ended questions: respondent gives answer rather than choosing among provided answers
 - more researcher control
 - time-consuming
 - interviewer bias



RESEARCH DESIGNS: SURVEYS, QUESTIONNAIRES AND INTERVIEWS

How was the presentation?
(in your own words)

How was the presentation?
(select one)

- Great
- Pretty Good
- OK
- Pretty Bad
- Terrible



RESEARCH DESIGNS: OBSERVATION AND PARTICIPANT OBSERVATION



- ...collecting information through observation of and/or direct participation in a group
 - most common form of quantitative research
 - Observation is an **unobtrusive measure**.
 - ethical questions
 - need access to subjects and appropriate training
 - **ethnography**: efforts to describe an entire social setting through extended systematic observation

RESEARCH DESIGNS: OBSERVATION AND PARTICIPANT OBSERVATION

- **participant observation:** researcher joins a group for a period of time to get a sense of how it operates
- If research is to be successful, observer cannot allow the close association or friendships that inevitably develop to influence subjects' behavior or conclusions of study.
- problems with generalizability
- done for exploratory work
- generates hypotheses



continued in SOCIOLOGICAL RESEARCH PART II

