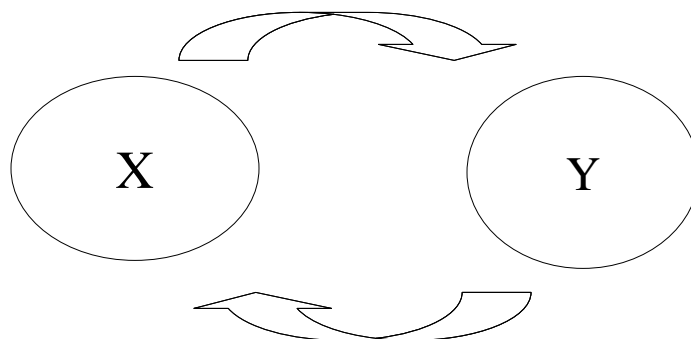


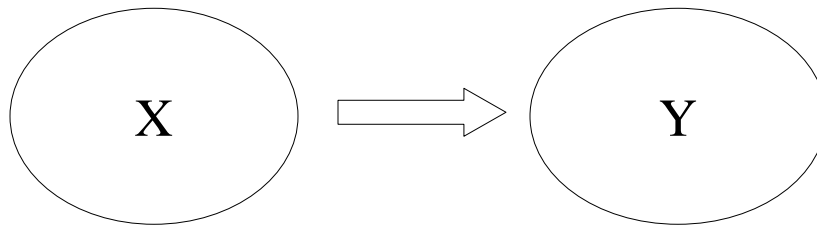
## Basic Concepts

- **Purpose of Science:**  
exploration, description, explanation
- **Attributes:**  
descriptive characteristics
- **Variables:**  
logical groupings of attributes

## Association



## Causality



## Independence model (hypothetical)

	Low	High
Support	50	50
Oppose	50	50
Total	100	100
N	( )	( )

Positive association  
(hypothetical)

Percentage Supporting Abortion, by Education Level		
	Low	High
Support	40	80
Oppose	60	20
Total	100	100
N	( )	( )

Negative association  
(hypothetical)

Percentage Supporting Abortion, by Education Level		
	Low	High
Support	80	40
Oppose	20	60
Total	100	100
N	( )	( )

## Units of Analysis

“Categorizing possible units of analysis may make the concept seem more complicated than it needs to be.

What you call a given unit of analysis—a group, a formal organization, or a social artifact—is irrelevant.

**The key is to be clear about what your unit of analysis is.”** (my emphasis)

[Earl Babbie, *The Practice of Social Research*, 2001, p. 97]

## Units of Analysis (n=4)

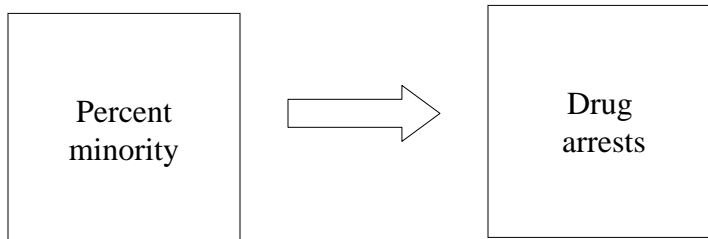
- Individual: attributes of people
- Social groups: populations of people
- Formal organizations: organizations with formal structure, rules, charter
- Social artifacts: social objects

## What's the Unit of Analysis? (what or whom is studied?)

- 1) Sex and political attitudes
- 2) Car brand and crash statistics
- 3) Proportion transient in a city and reported burglaries
- 4) Size of firm and percent of employees who are minority
- 5) Percent democrats in a congressional district and number of social programs
- 6) Support of oil companies for environmental causes and amount of oil spilled per year

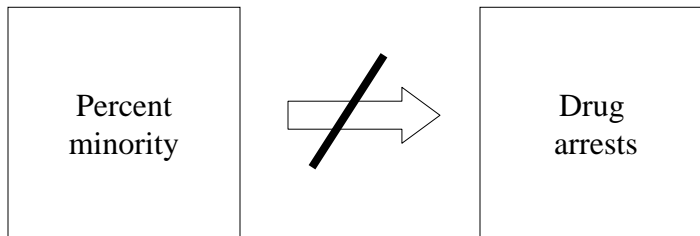
## Ecological Fallacy (confounding units of analysis)

Unit of Analysis = social group (city)



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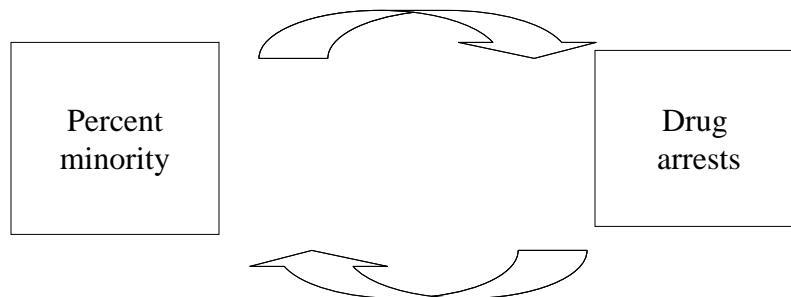
Unit of Analysis = social group (city)



*Moral:* Don't move down to lower unit of analysis and make causal argument.

## Ecological Fallacy (confounding units of analysis)

Unit of Analysis = social group (city)



*Moral:* Don't move down to lower unit of analysis and make causal argument.

## Timing of data collection and causality

- Cross-sectional: snapshot, can't infer causality
- Longitudinal studies: helps with causality
  - Trend studies
  - Cohort studies
  - Panel studies

## Conceptualization (Basic definitions)

- Concept: mental images
- Conceptualization: specifying precisely what we mean by our concepts
- Interchangeability of indicators: evaluating multiple indicators of concepts

## Alternative description

### Assigning definitions:

- ✓ Real definition: concepts are not real
- ✓ Nominal definition: definition assigned
- ✓ Operational definition: specific definition
- ✓ Reification: danger of thinking our concepts are real

## Granovetter's “strength of weak ties”

- *Concept:* strength of ties
- *Nominal definition:* frequency of contact with friend who passed along job information
- *Operational definition:* How often did you see the contact around the time he/she passed on the job information?
  - 1) Often (at least twice a week)
  - 2) Occasionally (greater than once a year, but less than twice a week)
  - 3) Rarely (once a year or less)

**Sample:** people who recently found jobs through contacts

## Granovetter's findings (univariate statistics)

Frequency of contact with friend	
	%
1. Often	17
2. Occasionally	55
3. Rarely	28
Total	100
N	( )



Inside Higher Education

*"With all due respect, sir, eating at Taco Bell  
is not a multicultural experience."*

**REMEMBER!**

Effect = noun

Affect = verb