Observing Behavior

Psychology 280 Lecture
4/24/2006

Observation

• The approaches discussed are considered nonexperimental
  • Observing behavior in natural settings
  • Asking people to describe their behavior (self-report)
  • Examining existing records of behavior
• These nonexperimental approaches focus on observing and measuring behavior rather than manipulating a variable and observing the resulting effect

Review of Nonexperimental Versus Experimental Methods

Nonexperimental method
• Relationships studied using observations or measures of the variables of interest.
• Sometimes referred to as the correlational method.
• Problems with making causal statements using this method.
  • There are two problems with making causal statements
    • Direction of cause and effect
    • Temporal precedence; Covariation of cause & effect
  • Third variable problem
  • Elimination of alternative explanations

Experimental method
• One variable is manipulated and the other variable measured
• Eliminates the third variable problem (confounding)
  - Experimental control
  - Randomization (random assignment)
Observation

- Broken down into two main approaches
  - Qualitative
  - Quantitative

Quantitative and Qualitative Approaches

- Quantitative approaches
  - Assign numerical values to responses and measures and then subject the data to quantitative statistical analyses
  - Surveys and questionnaires are instruments used quite frequently to gather quantitative data
  - We will discuss surveys more next week

Quantitative and Qualitative Approaches (con’t)

- Qualitative approaches
  - Describe behavior or findings based on themes that emerge from the data.
  - Data are nonnumerical and expressed in language and images
  - Think about it this way … the researcher is the primary instrument for data collection and analysis

Quantitative and Qualitative Approaches (con’t)

- Automotive Market Research
  - Qualitative – conducting a focus group to determine preferences
  - Quantitative – asking participants to rate their preferences on a questionnaire or as part of a structured interview
Naturalistic Observation

- Naturalistic observation is sometimes called field work or field observations.
  - Researcher makes observations in a natural setting, over a period of time, using a variety of techniques to collect information.
  - Famous example by Rosenthal (1973) – study what it was like to be a mental patient by having themselves admitted as patients.
  - Goal is to provide an accurate picture of what is occurring rather than testing a hypothesis directly.

Naturalistic Observation (con’t)

- Used to describe and understand how people in a social or cultural setting live, work, and experience the setting.
  - Usually qualitative data.
  - Researcher must interpret what occurred.
  - Generate hypotheses that help explain the data; hypotheses not determined before observation.
  - Final report of results organized around a structure developed by the researcher.

Naturalistic Observation (con’t)

- Issues in naturalistic observation:
  1. Participation
     - Nonparticipant observer does not become an active part of the setting (outsider).
     - Participant observer assumes an active role (insider).
     Problem: Objectivity.

Naturalistic Observation (con’t)

- Issues in naturalistic observation
  2. Concealment
     - Concealed observation may be preferable to minimize reactivity (the presence of observer will affect participants behavior).
     - Nonconcealed observation may be preferable from an ethic viewpoint.
Naturalistic Observation (con’t)
- Defining the scope of the observation
- Limits of naturalistic observation
  - Cannot be used to study all issues
  - Less useful when studying well-defined hypotheses under precisely specific conditions
  - Field research is difficult to do
  - A negative case analysis may be necessary

Systematic Observation
- Systematic observation refers to the careful observation of one or more specific behaviors in a particular setting.
  - Research interested in only a few very specific behaviors
  - Observations are quantifiable
  - Researcher has often developed prior hypotheses that guide observation

Systematic Observation (con’t)
- How many times do the same or opposite sexes touch?
- For example, studying infant-caretaker attachment. Specific behaviors are recorded when the stranger enters the mother/baby relationship.
  - How long does he cry?
  - What does he do when the mother returns?

Systematic Observation (con’t)
- Coding systems are used
  - Should be as simple as possible
  - Must allow researchers to easily categorize behaviors
  - Developed to fit the needs of the particular study or systems developed by others are used
Systematic Observation (con’t)

- Methodological issues
  1. Equipment
  2. Reactivity
  3. Reliability
  4. Sampling

Case Studies

- A case study provides a description of an individual.
  - Usually the individual is a person, but may also be a setting – work, school, etc.
    - Individual example: Psychiatric case study of a patient with generalized anxiety disorder
    - Setting example: If you were interested in seeing the best way to retain students in adult basic education programs, conduct a case study of a program with a high retention rate to delineate those factors which seem to contribute to success

Archival Research

- Archival research involves using previously compiled information to answer research questions.
  - Three types of archival research data:
    1. Statistical records
    2. Survey archives
    3. Written and mass communication records

Statistical Records

- A variety of statistical data available to conduct research on.
  - Aggression and temperature – MLB hit by pitch records in conjunction with game time temperature
  - Many educational organizations have summary data compiled that is used as a basis for national studies of students who are most likely to graduate, drop out, etc.
  - Looking at trends between college enrollment and unemployment trends
### Survey Archives

- Data from surveys that are stored on computers and available to researchers who wish to analyze them.
- Looking at broad based trends in specific areas.
  - General social survey – over 200 questions on a range of topics such as attitudes, life satisfaction, education, age, etc.
  - National Household Education Survey (NCES) – a variety of topics related to education including parental involvement in education, civic involvement, household library usage. [http://nces.ed.gov/nhes/](http://nces.ed.gov/nhes/)

### Written and Mass Communication

- Written documents such as letter and diaries that have been preserved by historical societies.
- Ethnographies of other cultures written by anthropologists.
- A variety of public documents.
  - Example: Analyzing problems written in Dear Abby letters concluded that letters that discussed the writer indicated the cause of the problem was external rather than internal … along the lines with traditional attribution theory!

### Describing Personality and Individual Differences

- Researchers devise measures to assess personality.
  - Example: Myers-Briggs Type Indicator for Introversion/Extroversion.
  - Can use the Burros Mental Measurement Yearbook or Test Critiques to see what psychological tests are out there.
  - Always preferable to use a test that has been deemed a reliable and valid measure!
- Quantitative and qualitative measures of individual differences.

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**The End**