

Ch. 6 Observational/Descriptive  
Methods

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I. Observational / Descriptive Methods

- A. Observation is both a Research Design and a measurement tool
- B. Designs
  - 1. Naturalistic Observation
  - 2. Structured Observation
  - 3. Field Experiments (not covered in book)
  - 4. Case Studies
  - 5. Archival Research (not really observation, but it is descriptive)

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C. Observational Measures

- 1. These measures can be used in either the lab, or the real world.
  - Lab Example – Mary Main’s Strange Situation  
Measure of attachment / Piaget
  - Real World – Our Cell Phone Study
- 2. The measures can be either Quantitative or Qualitative.
  - Our study takes a more Quantitative Focus.
  - Qualitative observations might have focused on the purpose of each participant’s cell phone use.

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## II Advantages of Descriptive Methods

1. Provides Basic Knowledge: gives you a rich source of data
2. Flexibility in Research Question
3. Identifies Ecological Function:  
Studying in the real environment you can ID the adaptive function of certain phenomena

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## Side Note: Internal and External Validity

- External Validity = Generalizability
  - To the Population (Representativeness)
    - Based on Random Sampling from Population
  - To other Settings
    - **Mundane (ecological) Realism** = Does it look like the real world and Could it occur in the real world
    - **Experimental Realism** = are participants involved
    - **Psychological Realism** = are the real world, psychological processes triggered

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## Side Note: Internal and External Validity

- Internal Validity = Ability to Infer Cause Effect Relationships
  - Random Assignment to Condition = Equivalent Groups
    - Individual differences are equally dispersed between groups
  - Follow experimental protocols to control confounding variables (unequal treatment of groups)

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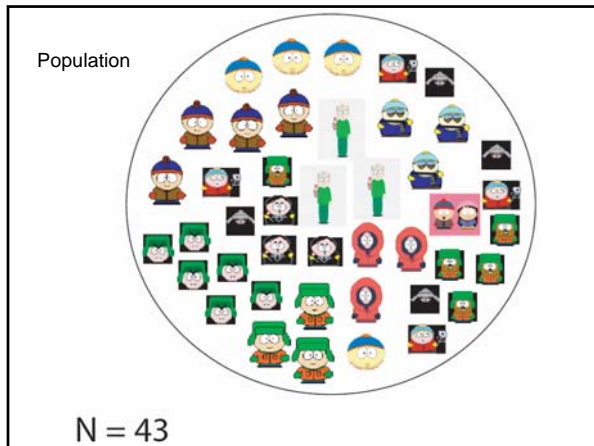
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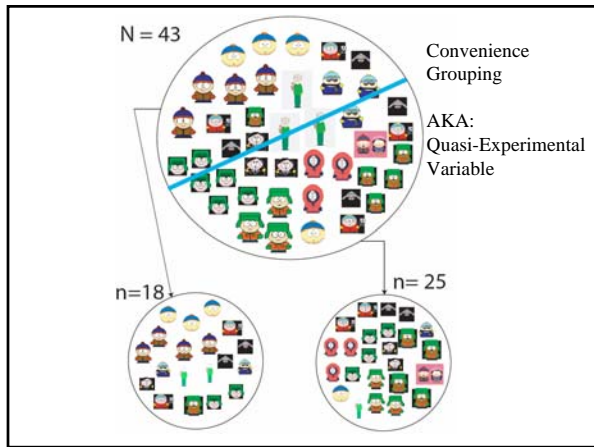
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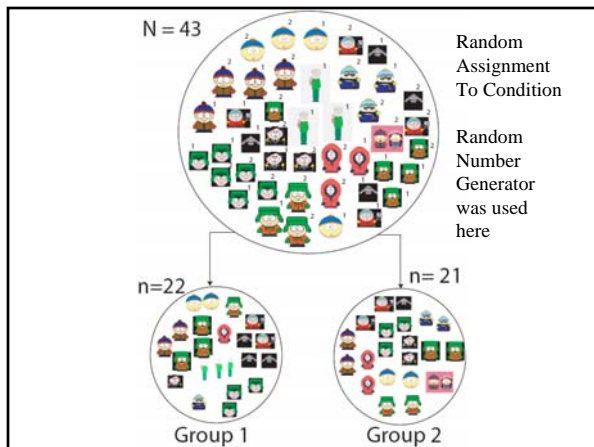
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III. Naturalistic Observation: We observe phenomenon in the environment in which they actually occur. e.g. Jane Goodall and her observations of Chimps in Gombe, Tanzania, Africa.

A. **External validity (Generalizability)**

- to population (representativeness) =  
    Low (no random sampling)
- to situation (Realism)
  - Mundane (Ecological) Realism = high
  - Experimental Realism (involvement) = high
  - Psychological Realism = high

B. **Internal Validity** = Low, no random assignment

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C. **Strengths:**

- Research agenda can be rather flexible
- Can identify ecological function (role of behaviors in adapting to the environment.
- High in Realism (looks and functions like the real world, because it is measured in the real world).
- Provides Basic Knowledge

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D. **Weakness:**

1. Reactance

- studying a phenomenon will change it in some way
- People react differently when they know you are watching them
  - Social Desirability /
  - Self-Presentation Strategies - Impression Management
  - Self Deceptive Positivity
  - Self-Awareness / Self-Consciousness

Solutions -

- Unobtrusive Observation
- The Participant Observer (Ethnographic Approach)
- Habituate Participants to observation.
- Unobtrusive Measures (Indirect Measures)

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D. Weakness

2. Frequency of Behaviors.

- Infrequent behaviors will be difficult to observe

3. Non-equivalence of Behaviors

- There may be non-equivalence of complex behaviors. Difficult to compare two subjects behaviors that differ, even to a small degree, with respect to elicitors and outcomes.
- Solutions – Structured Observation

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IV. Structured Observation:

Constrain the situation (real world or lab) so that desired event will occur consistently and frequently (equivalence of elicitors).

**External validity**

- Generalizability to population =  
-can be high (more control over sample selection)
- Generalizability to situation = Realism  
Mundane (Ecological) Realism = can be low (especially in lab)  
Experimental Realism = can be high  
Psychological Realism = should be high

**Internal Validity** = Low, no random assignment

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B. Structured Observation:

**Strengths:**

- Increase likelihood of seeing desired behaviors & increase equivalence of behaviors.
- reduce time & cost

**Weakness:**

- May lose realism & increase artificiality
- e.g. when does the Levin study happen in the real world.

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V. Field Experiment:

**External validity**

- to population = can be high (more control over sample selection)
- to situation = Realism
  - Mundane Realism = Should be high
  - Experimental Realism = Can be high
  - Psychological Realism = should be high

**Internal Validity** = Can be high, if use random assignment to condition, though you lose control in the real world.

**Strengths:**

- Higher level of control = can infer causality

**Weakness:**

- May lose realism & increase artificiality

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VI. Case Study:

**External validity**

- to population = Low  
(one subject tells us little about the population)
- to situation = Realism
  - Mundane Realism = Can be high
  - Experimental Realism = Should be high
  - Psychological Realism = should be high

**Internal Validity** = very low

**Strengths:**

- Can investigate very rare psychological phenomenon.
- Rich source of data. Potentially, Longitudinal.

**Weakness:**

- No causal inferences or generalizability to the population

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VII. Observer Bias

- Confirmatory Bias in Hypothesis Testing
- Perceptual Bias
- Error
- Solutions - Inter-Rater Reliability
  - Two raters must agree at some minimum level (depending on the type of ratings and data).
  - Generally 70-80% agreement is considered adequate.

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