

Collecting Data in Groups

Leong & Austin Chapter 15

The Role of Social Dynamics

- Collective norms, e.g., unanimity of group, can create defective decision making
- Groups make more polarizing decisions than do individuals acting alone
- **Non-independence**
 - Individual responses are influenced by the nature of interactions with other group members
 - Creates need for hierarchically-nested design with two levels of analysis (individual level and group level)
 - See Kashy & Kenny (2000) for advice on how to analyze at both levels
 - Must do even when hypotheses are at individual level
 - Frame hypotheses by considering sources of variance at both levels
 - What does this remind us of?

Group Sources of Variance

- Group size
 - Can influence factors such as conformity, obedience, amount of effort exerted
- Degree of hierarchical organization
- Communication structure

Setting and Design

- To determine group norms and long-term group action:
- Experiments can allow you to create situations that may occur infrequently naturally
 - Bystander effects
- But research criticized for lack of external validity (short meeting time, no expectation of continued existence)
 - Several group phenomena emerge only after members have developed significant shared experiences
- Alternative is to study real groups in natural settings

Most Common Methodology

- Correlational
- Observational

- Problems with these techniques?

Some Solutions

- Administer multiple surveys over the history of the group through a number of significant events
- Survey data are combined with data from other sources

- Covert observational strategies

Purpose?

- If purpose is to assess theories of group action – controlled experimentation is the right approach
- If purpose is to understand specific real-world group settings, or apply theory to these settings – then research with natural groups is more appropriate

Solutions

- Researchers can create groups for research purposes that operate in real-life settings
- Or
- Can manipulate conditions confronted by existing groups
 - Establishing project groups in classrooms
 - Having existing teams complete training simulations
 - Applying different work conditions to different organizational groups

Group Level Studies

- Unit of analysis is the group
- Interest in relationship between group size or structure and group coordination
- DV is product that emerges from group processes
- If group is required to collectively solve a problem

Subject Acquisition

- Create more sign ups than you need in each group
- If more show up than needed – randomly select for group and give others option to return for later session or to participate in concurrent unrelated study
- Screen for familiar individuals
 - Important for studies examining constructs like task-bases and social-based group cohesion
- Groups should not = dyads

How many groups?

- Convention for individual level research is 20 subjects per treatment level
- Means are more stable in groups (with same # of data points)
- No conventions established for # of groups
- 10-15?? At each treatment level
- 10 groups of 3 at each level of a 2 X 2 X 2 design
 - How many participants?

Natural Settings

- Be sensitive to restriction of range issues – such as??
- Good leaders vs. bad leaders
- Homogeneity
- Identify qualities and characteristics that vary from group to group and are likely to explain variance in their focal criteria
 - Measures of these characteristics should then be treated as covariates in analyses