Example 1

- Individuals primed with “old people concepts” are more likely to walk slower than those who are not primed with “old people concepts.”
- Independent variable
  - Operationally define “old people concepts”
- Dependent variable
  - Operationally define “walking speed.”
Example 1: Graph

![Bar graph showing walking duration as a function of prime type.](image)

Example 2: Identifiability and Social Loafing

- Hypothesis: Individual task performance will decline as group size increases, especially when individuals’ contributions to the group effort are unidentifiable.
  - Rationale: diffusion of responsibility, loss of evaluation potential
Example 2: Between and Within-S factors

Within-S factors

• Each participant experiences all levels of the within-S factor (e.g., working...[group size])
• Their order becomes a concern to the internal validity of the experiment.
  – There may be fatigue or practice effects
  – Thus, order must be random or counter-balanced
• Because participants experience all levels, they may guess the what is important in the study, trying to figure out hypothesis.
  – Demand characteristics
Between-S factors

• Each participant experiences only one level of this factor (e.g., identifiability/unidentifiability)
• Participants must be randomly assigned to the level of this factor.
  – Any other method of assignment violates assumptions of statistical tests, and threatens internal validity
  • Examples: morning/afternoon

Example 2: Between and Within-S factors

• Independent Variables?
  – Operational definitions
• Dependent Variables?
  – Operational definitions
• Main effects?
• Interactions?
• Internal Validity?
• External Validity?
Example 3: Stealing Thunder

- Revealing the worst evidence about your client before the prosecutor reveals it reduces the negative impact of that evidence.
  - Rationale: increases credibility, causes re-evaluation of the meaning of the evidence.

![Diagram showing the effects of revelation and type of evidence]

Effects of Revelation and Type of Evidence

- % finding defendant guilty
- If and Who Reveals Negative Evidence
- Types: Shoplifting, Armed Robbery

No Thunder | Prosecutor Reveals | Defense Reveals First
---|---|---
20 | 60 | 40

Psy 240: Williams
Example 3: Stealing Thunder

- Independent variables?
  - Operational definitions
- Dependent variable?
  - Operational definitions
- Within or Between?
- Main effects or interactions?
- Internal validity
- External validity

Example 4: Two factor, one IV and one PV

- Hypothesis:
  - Mortality salience increases worldview defense, especially among those holding a minority position.
- IV: Mortality salience
  - In front of mortuary, 100m before, or 100m after.
- PV: Attitudinal position
  - In majority or in minority
- DV: Level of assumed similarity with population at large (in %).
Graphed predictions