Questions?

• Final
  – In class final on May 22nd from 10:30 to 12:30

• Preliminary design presentation
  – 04/03

• Paper review in class
  – Be ready to have a draft by May 1st
Being fair with Science

• Dirty tricks
  – Fabricating
  – Falsifying

• Questionable tricks
  – Poor experimental design
  – Poor data collection
  – Poor data analysis
    • Check statistical test pre-conditions
  – Misleading data presentation
    • See Tufte’s books

• Neat tricks
  – Focusing on what conveys the most information
    • But be sure to do your homework!
  – Reorganizing
  – Reformulating
Experiment variables

• How do your variables relate to your hypothesis?

• Independent variables
  – How will you measure (in operational terms) your independent variables?
  – Is the range adequate?

• Dependent variables
  – How will you measure (in operational terms) your dependent variables?
  – Is this measurement reliable?
  – Is this measurement valid?
Between or Within subject design?

• Possible problems
  – Different participant backgrounds
  – Irreversible effects
  – Non-linear confounding variable
  – Symmetric skill transfer
  – Asymmetric skill transfer
  – Range effect

• What to do about them?
  – Change design
  – Counterbalancing
  – Matched-group design
Reading for next class

• Doing Psychology Experiments
  – Ch 9, 10
    • Be prepared to explain how these ideas can be applied to your project