

Factorial Designs: Further Considerations

Manipulated and Nonmanipulated Variables

- **All variables in the design may be manipulated independent variables.**
- **In an IV X SV factorial design, one or more of the variables is a nonmanipulated subject variable — subject gender, personality, and so on.**

Subject Assignment

- **In a completely independent groups factorial design, different subjects are randomly assigned to each of the conditions.**
- **In a completely repeated measures factorial design, the same subjects are assigned to all conditions in the experiment. Care must be taken to counterbalance to control for order effects except when repeated trials is the independent variable.**
- **In a mixed factorial design, there are both independent groups and repeated measures variables. A common mixed factorial design occurs when subjects in each condition are measured over repeated trials.**