

Factorial Designs

- Two or more independent variables manipulated in a single experiment.
- Simplest is a 2 X 2 factorial design having two independent variables, each with two levels. The 2 X 2 design has four conditions.

	B1	B2
A1		
A2		

- ***Main effect:***
The effect of each independent variable by itself. In a 2 X 2 design, there are two main effects.
- ***Interaction:***
An interaction indicates that the effect of one independent variable depends upon the particular level of the other independent variable.
- In a factorial design, you test whether there is a main effect for each independent variable, and whether there are any interactions. As you add more independent variables, the complexity of the design increases; there are more possible main effects and interactions.