

Follow-ups for 3-way Designs – When, Why & Which

Any significant effect with $k > 2$ conditions will require an LSDmmd to compare the condition means of that effect to describe the pattern of that effect ($n = N / \text{\#conditions in that effect}$)

Any lower-order variable(s) involved in a significant higher order effect will require an LSDmmd to compare the means of that higher order effect to determine if the pattern of the effect of the lower-order variable is descriptive or misleading

Significant effect with $k > 2$ conditions??

- will require pairwise follow-ups
- to compare the condition means of that effect
- to describe the pattern of that effect

Lower-order effect that is involved in a significant higher-order effect??

- will require a set of pairwise follow-ups
- to compare the condition means of that higher order effect
- to determine if the pattern of the lower-order effect is descriptive or misleading

For each set of results (i.e, each column) tell:

1. which effects will need an LSD to describe the pattern of the effect -- or tell why not
2. which effects must be checked for being misleading – or tell why not

Effects	Data set #1	Data set #1	Data set #1	Data set #1	Data set #1	Data set #1
#cond → A*B*C	2*2*3	2*2*3	3*3*2	2*3*3	2*2*2	3*3*3
A*B*C	p < .05	p > .05	p < .05	p > .05	p < .05	p > .05
A*B	p > .05	p > .05	p > .05	p > .05	p < .05	p > .05
A*C	p > .05	p > .05	p > .05	p > .05	p > .05	p < .05
B*C	p < .05	p < .05	p > .05	p > .05	p < .05	p < .05
A	p < .05	p < .05	p > .05	p < .05	p > .05	p > .05
B	p > .05	p > .05	p > .05	p > .05	p > .05	p < .05
C	p < .05	p < .05	p > .05	p < .05	p < .05	p < .05