Chapter 4 Post Hoc Comparisons

1. Just running an ANOVA is not the final answer:
2. Need for analytical comparisons
   1. Analytical comparison
   2. Planned comparisons
   3. Back to the Math SSa
      1. SSa
   4. Omnibus/overall F
   5. Planned comparisons take 2
3. Example of planned comparisons
   1. QWERTY example:

|  |  |  |
| --- | --- | --- |
|  | Right Hand | Left Hand |
| Real Words | A | B |
| Fake Words | C | D |

1. Comparisons among treatment means (go back to the original QWERTY data)
   1. Pairwise comparisons
   2. Example hypothesis for QWERTY
   3. The last one is a complex comparison
   4. Single df comparisons
2. SKIP PAGE 65-71 ON CREATING CONTRASTS WITH COEFFICIENTS
   1. This view is useful for regression analyses and the *idea* of complicated contrasts. There’s no point in chugging through the math twice (i.e. it is the same math we did in the last chapter). Instead we’ll discuss the common way to do these comparisons.
3. Evaluating contrasts with a t-test
   1. SPSS stuff!
4. Directional hypotheses
   1. Page 74 picture
   2. A two-tailed test =
   3. One tailed test =
5. Confidence intervals
   1. SPSS stuff!
6. The kicker on comparisons! Orthogonal contrasts
   1. Cheating!
   2. SHOW QWERTY example
   3. How to tell:

|  |  |  |  |
| --- | --- | --- | --- |
| Comparison | Left | Right | Equal |
| Left v right |  |  |  |
| Left v equal |  |  |  |
| Multiply |  |  |  |

* 1. Orthogonality
     1. Can you make up a set that is orthogonal for this data?
  2. Do you have to have orthogonal contrasts in real life?

1. IGNORE SECTIONS 4.6 TO THE END PAGE 79-84.