To run a one-way ANOVA in SPSS, go under the “Analyze” menu to “Compare means” to “One-way ANOVA…” You will get the following window:

Click on the variable you want to use as your IV (in the above example “cond”) and put it in the “Factor” box by clicking on the appropriate arrow. Next, click on the variable you want to use as your DV and put it in the box labeled “Dependent List.” (Note that if you wanted, you could put a whole bunch of DVs in the box at the same time, and SPSS would run a separate ANOVA for each DV.)

Now you need to tell SPSS which post-hoc multiple comparison procedure(s) you want to use (to compare pairs of means if the overall F is significant). Click on the box labeled “Post Hoc.” SPSS will give you the following window:

You are given the option to choose among various post-hoc tests. Tukey’s HSD is the most widely-used procedure, so go ahead and click on the box next to “Tukey” (NOT “Tukey-b”). Click continue to get back to the ANOVA window.

Next, you want to make sure that you get descriptive information printed out (means and standard deviations for each condition), as well as the labels of each condition. To do that, from the “One-way ANOVA” window, click on “Options.” When the window comes up, click in the box labeled “Descriptive” and then click “Continue”:
When you get back to the main ANOVA window, click **OK**. Examine your output. What is your overall $F$? Is it significant? If so, examine the post-hoc tests to determine which means are significantly different from one another. Use the source table to compute $\eta^2$ for a significant finding. Refer to page 389 of your text for how to write up the results of a one-way ANOVA.

**Important details for writing a Results section involving a one-way ANOVA (also refer to previous details for reporting results of an independent samples $t$ test):**

- You should italicize $M$, $SD$, $F$, and $p$.
- Round everything except mean age to 2 decimal places.
- First indicate whether the overall $F$ was significant, and then discuss the results of the post hoc test (be sure to state which post hoc test you used).
- Make sure to include information about the strength of the relationship if you indeed found a significant $F$.
- Be sure to indicate means and standard deviations for the different groups, and refer to your figure if you created one.

**Tree-saving hint:** SPSS likes to put each output run on a separate page. To conserve paper, when you choose “Print” from the “File” menu, change “General” (in the top left) to “Layout” and choose to print two or four pages to a page.