Interrater Reliability Using SAS

In this document I explain how to use SAS to obtain interrater reliability indices. The data for these examples are taken from Table 9.1 in the book (p. 211) and are in the SAS dataset "**rater.sas7bdat**"

In the sections below I demonstrate how to obtain values of coefficient alpha. There is currently no straightforward way to obtain values of the intraclass correlation in SAS, although a SAS macro for this purpose is available on the SAS website at http://support.sas.com/kb/25/031.html. An alternative method is to calculate the various coefficients by hand using estimates of the variance components obtained from **proc glm** or **proc mixed**. Refer to the document "G-theory estimation using SAS" for code to obtain variance component estimates.

Coefficient Alpha for Interrater Reliability

To obtain values of coefficient alpha, use the **proc corr** with the specification **alpha**. The variables are the three raters. The specification **nocorr** suppresses printing of the correlation matrix. The specification **nomiss** specifies listwise missing data handling.

proc corr data=rater **nocorr alpha nomiss;**
  variables rater1 rater2 rater3**;**
run;

These commands yield the table below.

Cronbach Coefficient Alpha	
Variables	**Alpha**
Raw	0.957111
Standardized	0.959369

Note that this is the same (once rounded) as the value of .96 reported on page 215 of the text. The value in the row labeled "standardized" should only be interpreted if the variables are all in *z*-score form or are otherwise in the same metric.