Today

- Worksheet
  - Construct bias
- Project
Test Bias

Biases that systematically obscure differences (or lack thereof) among groups of respondents.

Important that test scores don’t unjustifiably discriminate against groups
- Gender
- Race

Can be a function of how an item is phrased

e.g.
‘If I don’t talk about my feelings daily I get upset’
Detecting Test Score Bias

- Theoretical concept
- No single method
- Use multiple pieces of information to make inferences
- Similar to establishing validity
Construct Bias

Does the relationship between true and observed scores systematically differ?

Different observed scores but same true scores

OR

Same observed scores but different true scores

If a male and female possess (and display) the same level of psychopathy but respond differently to an item (or subscale) measuring that attribute
Detecting Test Score Bias

Construct Bias

- Detected at the item level
  - Can use Discrimination index (as demonstrated in the lecture)

- Identify differing internal structures between groups

You will be conducting a PCA
  - In order to calculate a Factor Congruence Coefficient
<table>
<thead>
<tr>
<th>Congruence</th>
<th>Interpretation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. $f_c \geq .80$</td>
<td>No evidence for construct bias</td>
</tr>
<tr>
<td>2. $0.60 \leq f_c \leq .79$</td>
<td>Weak evidence for construct bias</td>
</tr>
<tr>
<td>3. $0.30 \leq f_c \leq .59$</td>
<td>Moderately strong evidence for construct bias</td>
</tr>
<tr>
<td>4. $f_c \leq .30$</td>
<td>Very strong evidence for construct bias</td>
</tr>
</tbody>
</table>
During the break you should have collected your pilot data or your final data set.

Send me a data file (use the template on LMS) and send me the collected data you would like to use for validity analyses.
Project update

- Have a data file with collected data from your test with student numbers (if you want to use peer data).
  - SPSS template on LMS (this is only a guide – you will need to modify it to suit your data)
- If you would like access to the other 3302 data
  - Data file must be completed and sent to your tutor by your WEEK 9 lab
  - Data file must be legible and set up correctly, if not, it will be returned to you
  - A de-identified data file will be returned to you prior to your WEEK 10 lab
- IF YOU HAVE QUESTIONS ABOUT THIS ASK ME NOW (during this lab)
So…

- Over the next couple of weeks you should be writing up your guide.
- Once you have a data file returned to you, start to do your analyses.
- Adjust/adapt/refine your measure where appropriate.