

## Creating a short level 2 ID column for the residuals

MLwiN outputs level 2 residuals with one residual per level 2 unit, with no gaps. Therefore the residuals do not match up with the codes in the level 2 identifier column: the residual on row 10 is the residual for the 10th level 2 unit which will probably not be the level 2 unit of the 10th individual in the dataset.

In order to see which level 2 unit each residual belongs to it is necessary to create a short level 2 identifier column, which also has one row per level 2 unit. To do this, supposing your level 2 identifier is **school**, and **c20** is a free column,

- From the **Data Manipulation** menu select **Unreplicate**. (This brings up the **Take data** window)
- From the **Take first entry in blocks defined by** drop-down box select **school**
- Under **Input columns** select **school**
- Under **Output columns** select **c20**
- Click **Add to action list** and **Execute**

**c20** now contains one identifier for each level 2 unit. If you highlight **c20** and the column containing the residuals in the **Names** window and click **Data**, to bring these columns up side by side, then each residual refers to the level 2 unit appearing on the same row of **c20**.

It is also possible to create the short ID column using a command:

```
► TAKE 'school' c20
```