



Estimation of Heritability in Humans

Practical Session



Twin Model

- Dataset:
 - 1000 MZ twin pairs
 - 2000 DZ twin pairs
 - Three traits
- Estimate heritability for these traits



Twin Model

- Use any software you feel comfortable with
 - R (preferable)
 - Excel



Twin Model

- One-way ANOVA
- Hint:
 - Stack data for twin #1 and twin #2 in one column
 - Create a column called “Pair” and give each twin pair a unique number



Twin Model

- Questions that could be addressed are:
 - Do males and females differ for their mean or variance?
 - Do MZ and DZ twins differ?
 - Is there evidence for genetic variation?
 - What is the heritability?