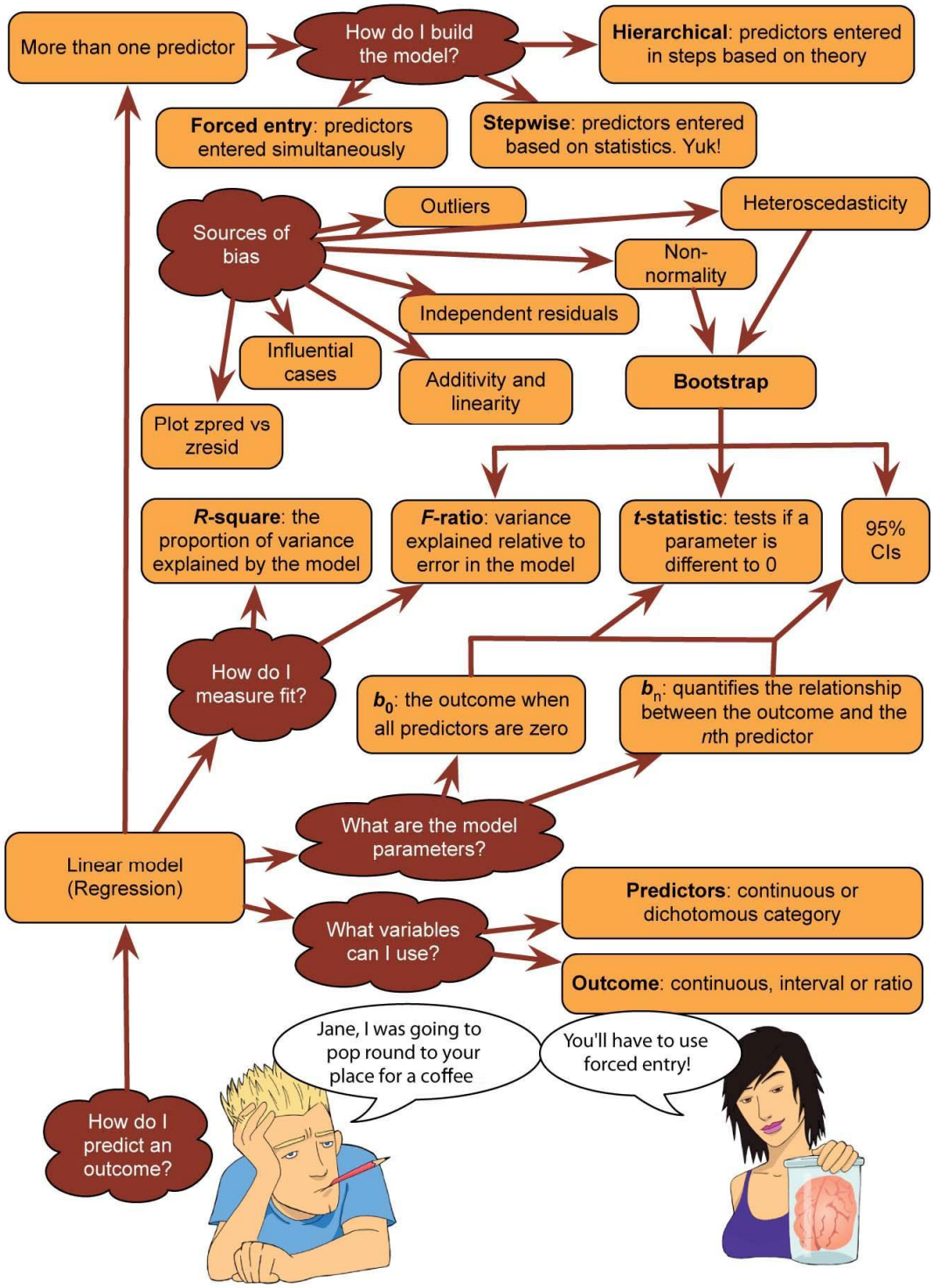
More than one predictor
How do I build the model?
Hierarchical: predictors entered in steps based on theory
Forced entry: predictors entered simultaneously
Stepwise: predictors entered based on statistics. Yuk!
Sources of bias
Outliers
Heteroscedasticity
Non-normality
Independent residuals
Influential cases
Additivity and linearity
Bootstrap
Plot zpred vs zresid
R-square: the proportion of variance explained by the model
F-ratio: variance explained relative to error in the model
t-statistic: tests if a parameter is different to 0
95% CIs
How do I measure fit?
b0: the outcome when all predictors are zero
bn: quantifies the relationship between the outcome and the nth predictor
What are the model parameters?
Linear model (Regression)
What variables can I use?
Predictors: continuous or dichotomous category
Outcome: continuous, interval or ratio
How do I predict an outcome?
Jane, I was going to pop round to your place for a coffee
You'll have to use forced entry!