

# Appendix

Torfinn and Carolina

November 24, 2014

## 1 Introduction

We created an appendix of meta-analysis paper. To be able to visualize the output, we used an example dataset taken from Gibson et al. 2011.

The dataset to be working with should be named “data.sub”. The conducted analysis using the function `rma` from the `metafor` package should be renamed as such: `rma` of a random effects model should be named “`rma.RE`” and an `rma` of a fixed effects model should be named “`rma.FE`” in order for the automatisisation to work. If a meta-regression has been conducted, it should be called “`rma.RE.meta`” or “`rma.FE.meta`” respectively. Other than that, the `metafor` package in R needs to be installed.

?? How can a an automatised table be created for rows from e.g. different `rma` objects? In our case, we just have one `rma` object so one row is produced. If the people conduct different `rm`s for different data subsets, it would be nice to have this in the same table as well!

Table 1: Results of the meta-analysis. Includes the the egger’s test and the fails-safe number for publication bias testing.

	Effect.Size	SE.of.Effect.Size	CI.lb.	CI.ub.	P.ES.	Q	P.Q.	I.2	Egger	P.Egger.	FSN
Value	-0.28	0.12	-0.52	-0.04	0.02	47.05	0.12	27.22	-0.44	0.66	77.00

This table should work once you have saved the `rma.RE.meta` and loaded it at the top of the document!!! Take it out of the %.

Table 2: Results of the meta-regression. Test for heterogeneity taking all four continents into account

	Effect.Size1	Effect.Size2	Effect.Size3	Effect.Size4	SE.of.Effect.Size1	SE.of.Effect.Size2	SE.of.Effect.Size3	SE.of.Effect.S
Africa	0.14	-0.39	-0.39	-0.59	0.32	0.39	0.43	0

To do:

Add a table with the results from the meta regression + add a bubble plot. Add the 4 figures as well and a table for the sensitivity analysis.

!!! I tried saving the `rma.meta.RE` as an object but I encountered problems with saving it, as it said it cannot open the compressed file. Haven’t found a solution till now. Maybe you can save the object? :)

Do the same for the meta package or use the forest plot from the meta package

Notes:

Are we going to make two scripts? One for meta and one for metafor or are we going to do a combination? Plus write a function for this script? Don’t know if this such a good idea as the

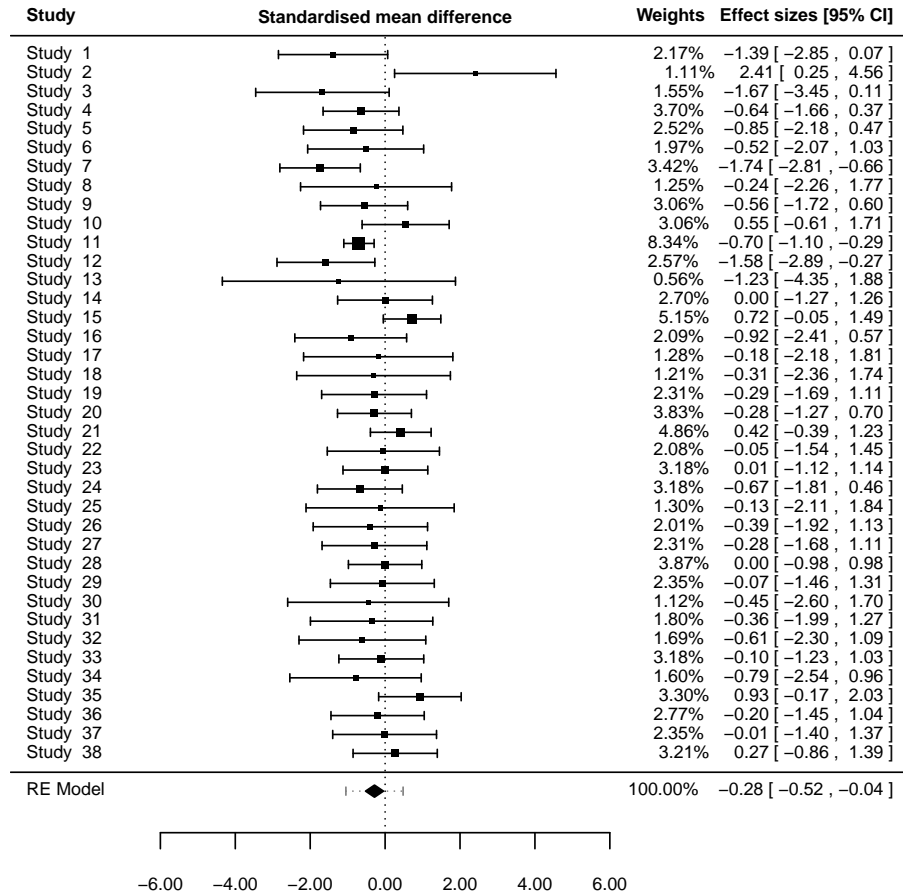


Figure 1: Forest plot of a random effects model. The column on the left represents the study. The weighted percentage is shown as well as the effect size (ES) [ $\pm$  95% CI]

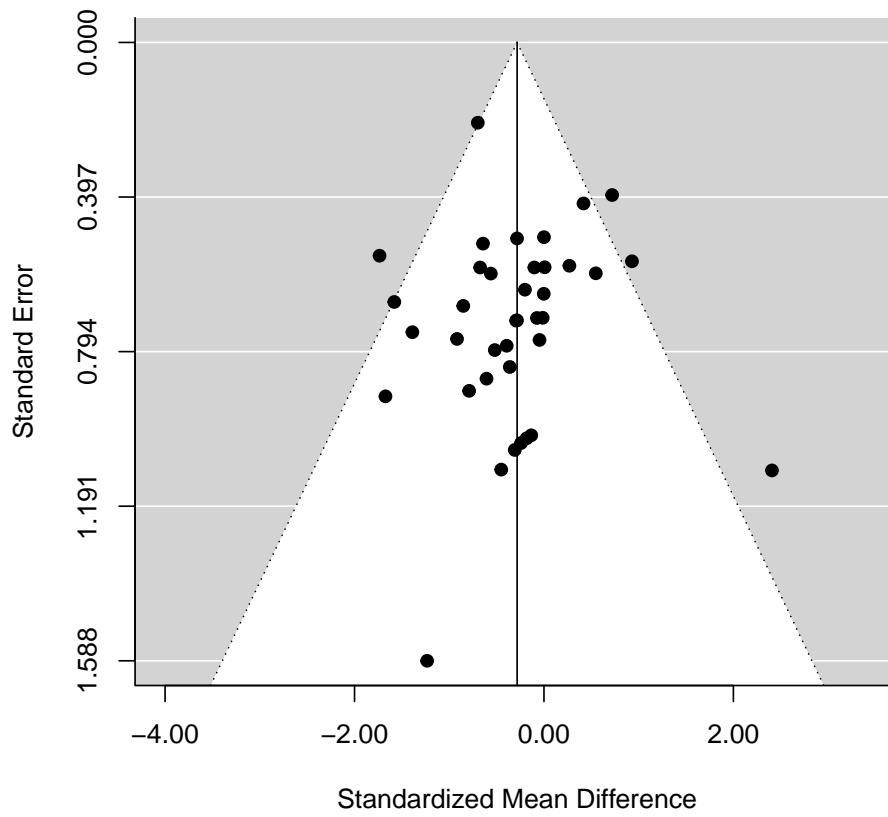


Figure 2: Funnel plot of random effects model displaying possible publication bias. The true ES is displayed by the solid vertical line.

appendix is not that good. Especially the table. Till now it would only work with one `rma.RE` object with one row and not many. Is it possible to combine specific single values of various `rma` objects? Can we do this?

To assess possible publication bias, funnel plots can be used for visualization purposes.

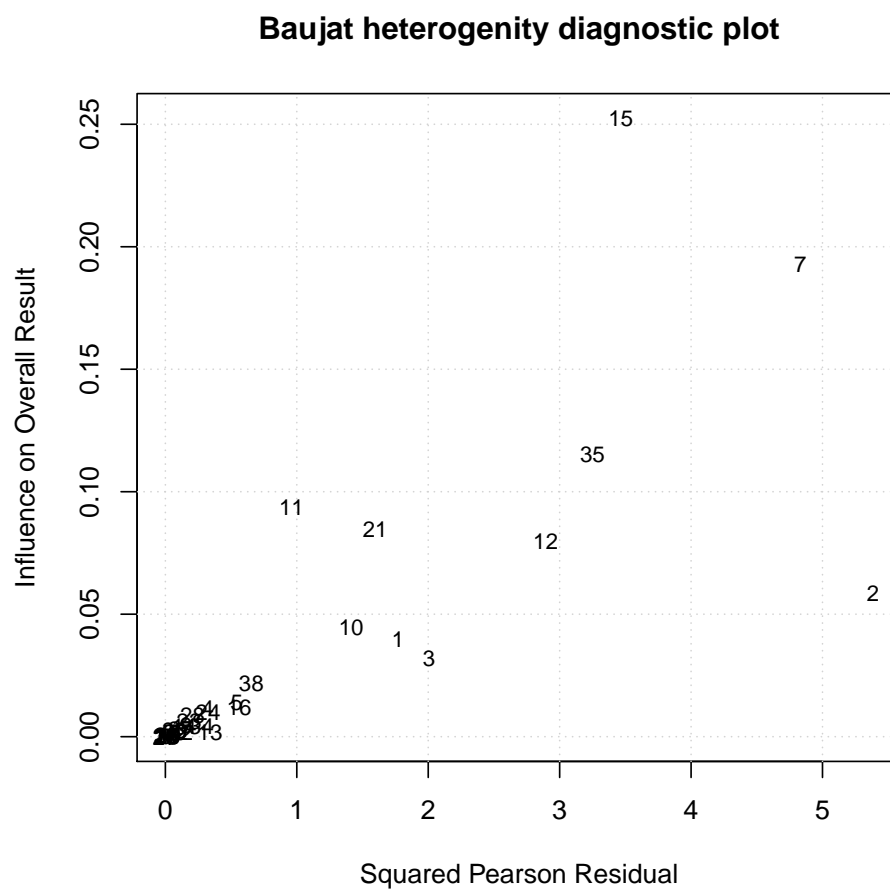


Figure 3: Baujat heterogeneity plot for diagnostics of meta analysis

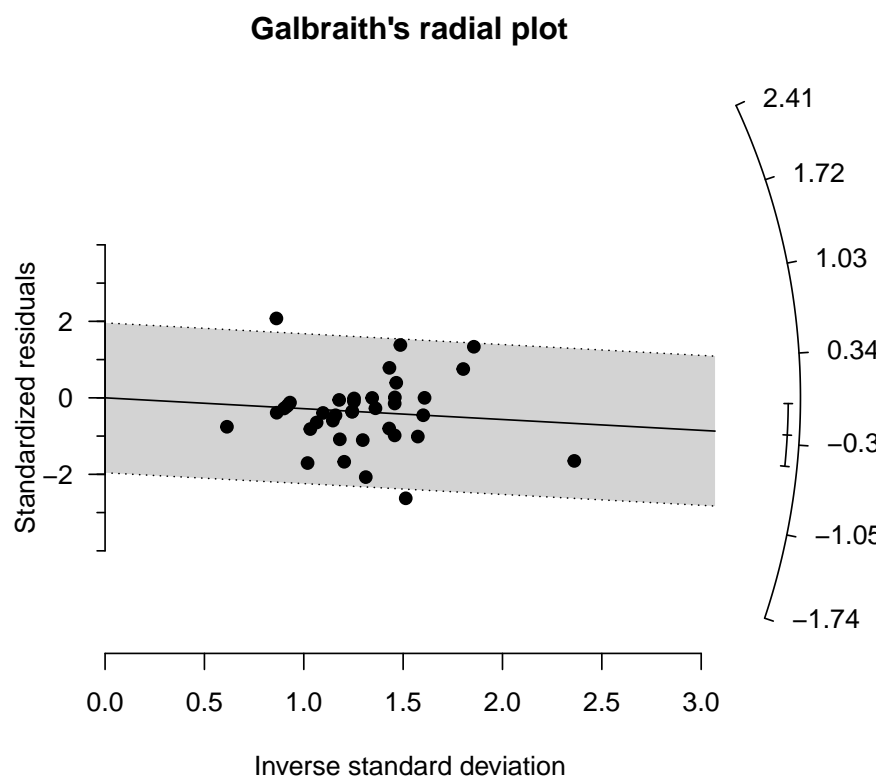


Figure 4: Galbraith's radial plot for diagnostics of meta analysis

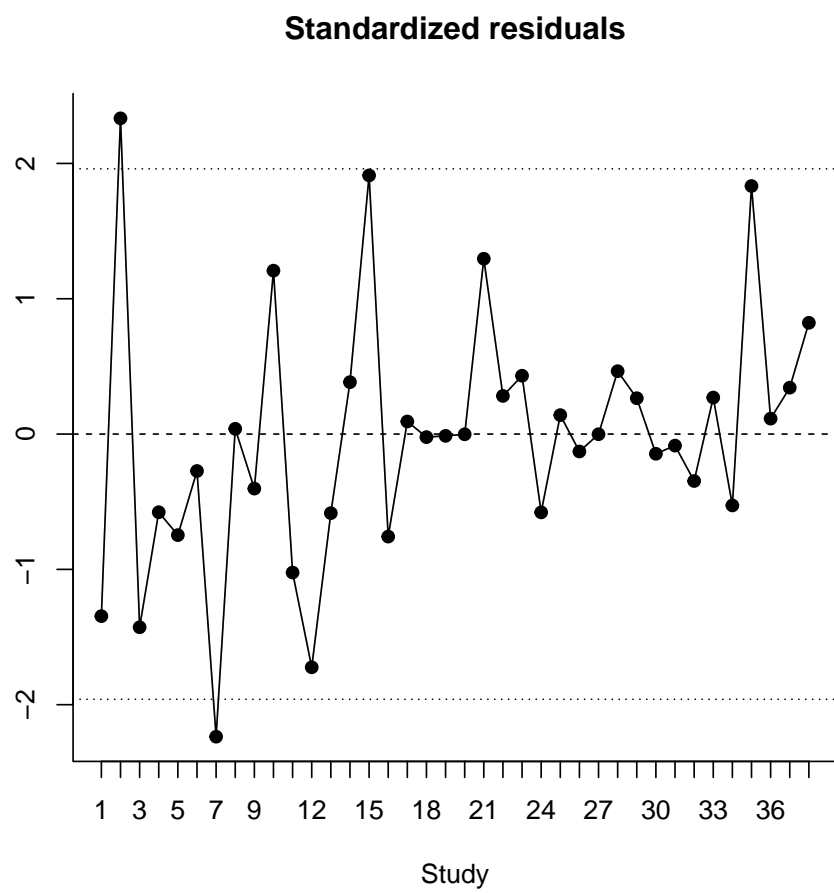


Figure 5: Standardized residuals plot for diagnostics of meta analysis

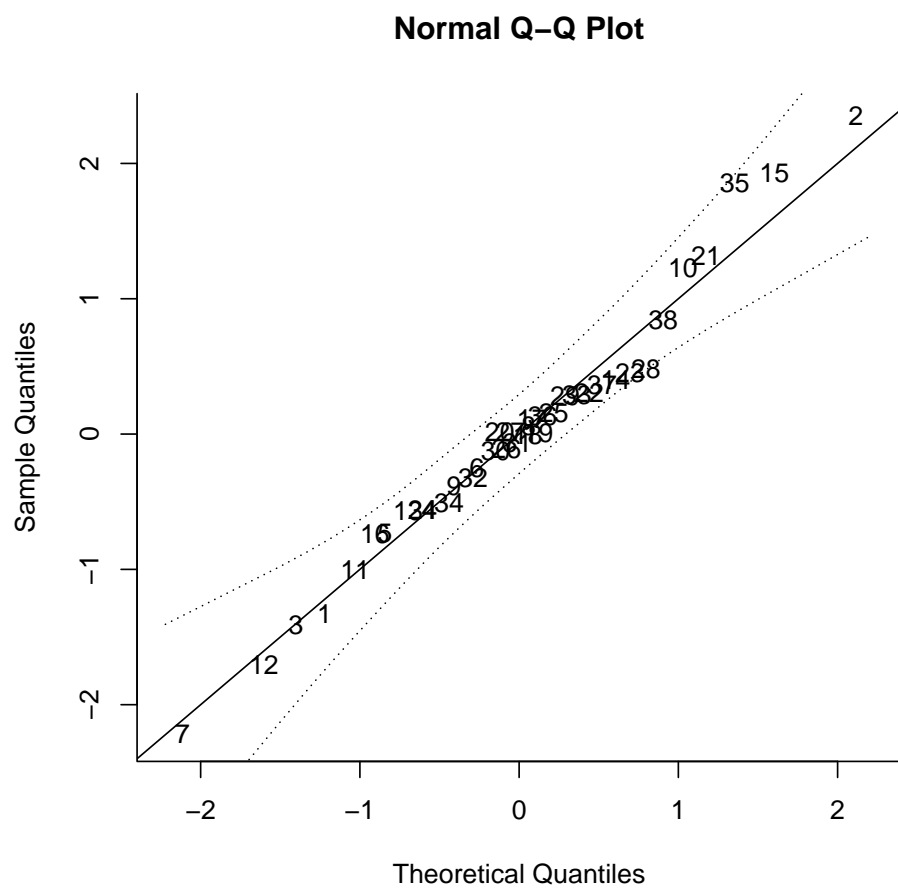


Figure 6: Quantile-Quantile plot for diagnostics of meta analysis

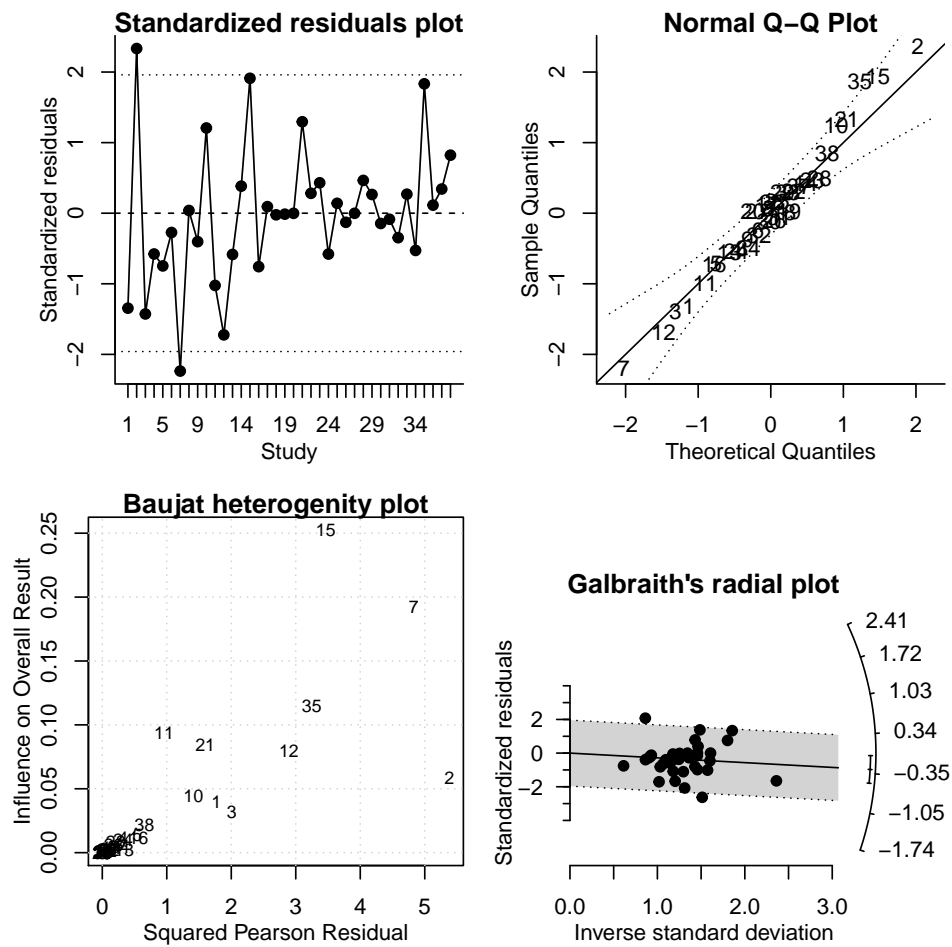


Figure 7: Quantile-Quantile plot for diagnostics of meta analysis



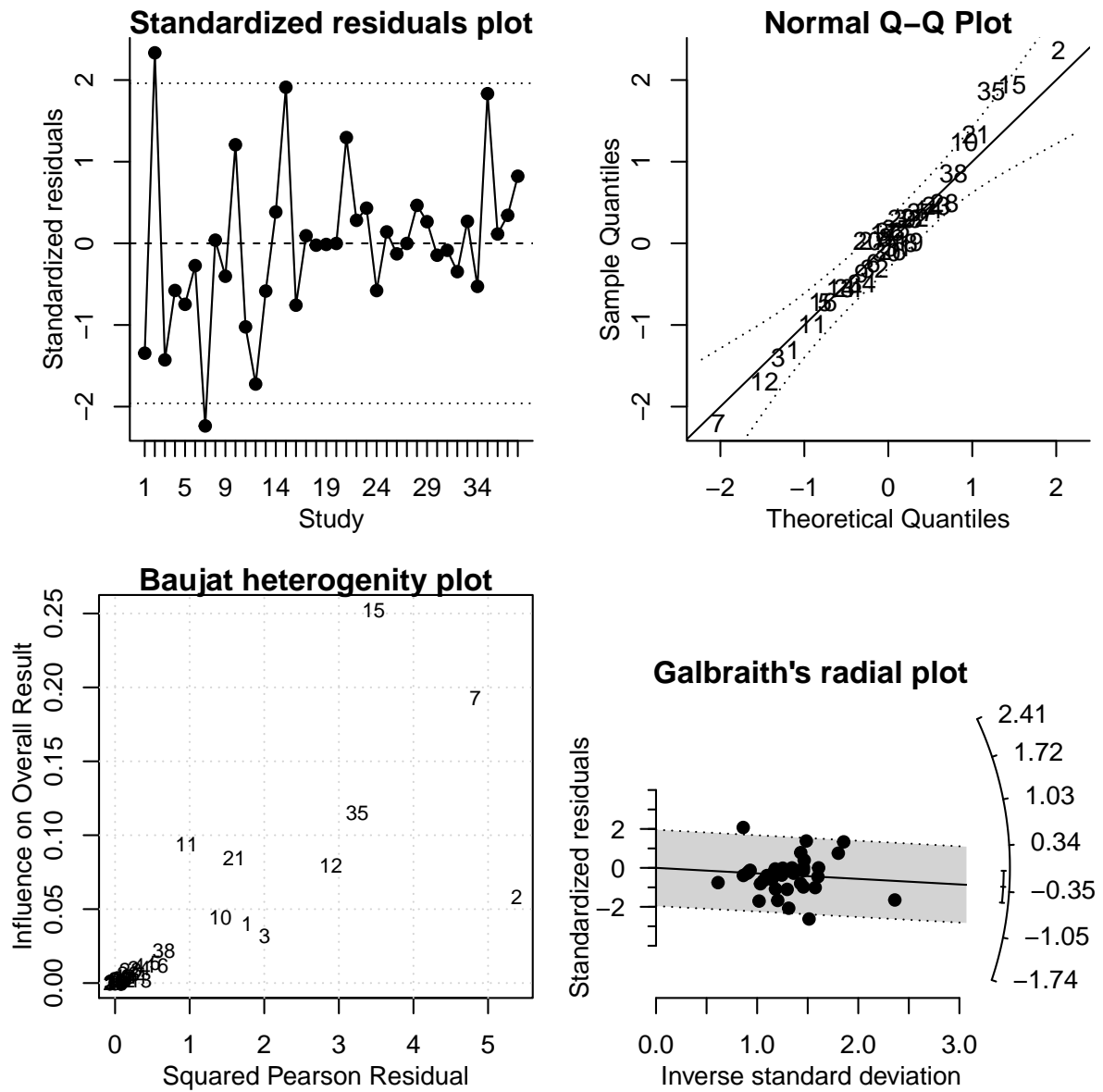


Figure 8: diagnostic plots for diagnostics of meta analysis