Overall Effect Size Calculation

```
library(meta)
library(metafor)
# Loading
library("readxl")
# xls files
data <- read_excel("Revised_database_for_R.xlsx")

# Random-effects meta-analysis with pre-calculated estimates (SMD) and using
DerSimonian and Laird method

m.hksj<-metagen(data$SMD,
                data$se,
                data=data,
                studlab=paste(data$Study),
                comb.fixed = FALSE,
                comb.random = TRUE,
                method.tau = "DL",
                hakn = TRUE,
                prediction=TRUE,
                sm="SMD")
```

SUbgroup Analyses

```
## Example for Households vs. Individuals
x.sub1 <- subset(data,data$Households==1)
x.sub2 <- subset(data,data$Households==0)

m.sub1<-metagen(x.sub1$SMD,
                x.sub1$se,
                data=x.sub1,
                studlab=paste(x.sub1$Study),
                comb.fixed = FALSE,
                comb.random = TRUE,
                method.tau = "DL",
                hakn = TRUE,
                prediction=TRUE,
                sm="SMD")


m.sub2<-metagen(x.sub2$SMD,
                x.sub2$se,
                data=x.sub2,
                studlab=paste(x.sub2$Study),
                comb.fixed = FALSE,
                comb.random = TRUE,
                method.tau = "DL",
                hakn = TRUE,
                prediction=FALSE,
                sm="SMD")
```

Funnel Plot

```
## Small-study bias
funnel(m.hksj, xlab="Effect estimate",
```

```
col ="black",cex=1.5,hlines="red",bg='black',ylim=(c(1.1, 0)),
        contour = c(.95,.975,.99),  col.contour=c("darkgray","gray","lightgray"))+
   legend(1.4, 0, c("Studies","< 0.01", "p<0.025","p < 0.05","p>0.05" ),bty = "o",
          pch=c(16,NA,NA,NA,NA),
          fill=c("white","lightgray","gray","darkgray","white"),bg='white',border =
"black")
```

Cumulative Meta-analysis

```
#Fit a simple random-effects meta-analytic model
random = rma(yi=data$SMD, vi=data$se,  method="DL",
test="t",slab=paste(data$Study),tau2="TRUE")
tmp <- cumul(random, order=order(data$Year), transf=TRUE)
forest(tmp, xlim=c(-4,2), at=(c(-2, -1, -0.5, -.1,0)),
      digits=c(2,2), cex=0.5, yaxt="n" )
```