```r
CF1 <- read.csv("CF1.csv")
CF2 <- read.csv("CF2.csv")

mat1 <- as.matrix(CF1)
mat2 <- as.matrix(CF2)

dimnames(mat1)[[1]] <- dimnames(mat1)[[2]] <- c("BO", "STS")
dimnames(mat2)[[1]] <- dimnames(mat2)[[2]] <- c("BO", "STS")

matrix.list <- list(mat1, mat2)
names(matrix.list) <- c("Sodeke-Gregson et al., 2013", "Deighton et al., 2007")
n <- c(253,100)
all.data <- list(matrix.list, n)

library(metaSEM)


cfa1 <- tssem1(all.data[[1]], all.data[[2]], method="REM", RE.type = "Diag")
summary(cfa1)
```

```
##
## Call:
## meta(y = ES, v = acovR, RE.constraints = Diag(paste0(RE.startvalues,
##     "*Tau2_", 1:no.es, "_", 1:no.es)), RE.lbound = RE.lbound,
##     I2 = I2, model.name = model.name, suppressWarnings = TRUE,
##     silent = silent, run = run)
##
## 95% confidence intervals: z statistic approximation (robust=FALSE)
## Coefficients:
##             Estimate Std.Error    lbound    ubound z value  Pr(>|z|)
## Intercept1  0.628613  0.129048  0.375684  0.881542  4.8712 1.109e-06 ***
## Tau2_1_1    0.029929  0.033275 -0.035289  0.095148  0.8994    0.3684
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Q statistic on the homogeneity of effect sizes: 20.09591
## Degrees of freedom of the Q statistic: 1
## P value of the Q statistic: 7.36542e-06
##
## Heterogeneity indices (based on the estimated Tau2):
##                              Estimate
## Intercept1: I2 (Q statistic)   0.9003
##
## Number of studies (or clusters): 2
## Number of observed statistics: 2
## Number of estimated parameters: 2
## Degrees of freedom: 0
## -2 log likelihood: -1.130132
## OpenMx status1: 0 ("0" or "1": The optimization is considered fine.
## Other values may indicate problems.)
```

```r
dims <- c("BO", "STS", "CF")
mat<-matrix(rep(0, 3*3), nrow=3, ncol=3)
dimnames(mat)[[1]]<-dimnames(mat)[[2]]<-dims
```

```
mat
```

```
##     BO STS CF
## BO   0   0  0
## STS  0   0  0
## CF   0   0  0
```

```
A <- matrix(c(0,0,"0.3*CF",0,0,"0.3*CF",0,0,0),nrow=3,ncol=3,byrow=TRUE)
dimnames(A)[[1]]<-dimnames(A)[[2]]<-dims
A
```

```
##     BO  STS CF
## BO  "0" "0" "0.3*CF"
## STS "0" "0" "0.3*CF"
## CF  "0" "0" "0"
```

```
A<-as.mxMatrix(A)


Vars <- Diag(c("0.2*var_BO", "0.2*var_STS"))
Cors <- matrix(1,nrow=1,ncol=1)
S <- bdiagMat(list(Vars, Cors))
dimnames(S)[[1]] <- dimnames(S)[[2]] <- dims
S
```

```
##     BO           STS           CF
## BO  "0.2*var_BO" "0"           "0"
## STS "0"          "0.2*var_STS" "0"
## CF  "0"          "0"           "1"
```

```
S <- as.mxMatrix(S)


F <- Diag(c(1, 1, 0))
F <- F[1:2,]
dimnames(F)[[1]] <- dims[1:2]
dimnames(F)[[2]] <- dims
F
```

```
##     BO STS CF
## BO   1   0  0
## STS  0   1  0
```

```
F <- as.mxMatrix(F)
cfa2 <- tssem2(cfa1, Amatrix = A, Smatrix = S, Fmatrix = F, diag.constraints = FALSE)
summary (cfa2)
```

```
##
## Call:
## wls(Cov = pooledS, aCov = aCov, n = tssem1.obj$total.n, RAM = RAM,
##     Amatrix = Amatrix, Smatrix = Smatrix, Fmatrix = Fmatrix,
##     diag.constraints = diag.constraints, cor.analysis = cor.analysis,
##     intervals.type = intervals.type, mx.algebras = mx.algebras,
##     model.name = model.name, suppressWarnings = suppressWarnings,
##     silent = silent, run = run)
##
## 95% confidence intervals: z statistic approximation
```

```
## Coefficients:
##    Estimate Std.Error   lbound   ubound z value  Pr(>|z|)
## CF 0.792851  0.081382 0.633345 0.952357  9.7423 < 2.2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Goodness-of-fit indices:
##                                           Value
## Sample size                             353.000
## Chi-square of target model                0.000
## DF of target model                        0.000
## p value of target model                   1.000
## Number of constraints imposed on "Smatrix"   0.000
## DF manually adjusted                      0.000
## Chi-square of independence model         23.728
## DF of independence model                  1.000
## RMSEA                                     0.000
## RMSEA lower 95% CI                        0.000
## RMSEA upper 95% CI                        0.000
## SRMR                                      0.000
## TLI                                          NA
## CFI                                       1.000
## AIC                                       0.000
## BIC                                       0.000
## OpenMx status1: 0 ("0" or "1": The optimization is considered fine.
## Other values indicate problems.)
```