Appendix C: Bootstrapping Code

Resampling and Calculating Kappa SE

```r
bootRating = function(ratings,numSel=2, numRaters=32,prosodicType,numSims
    =10000, idir="/data/Dropbox/current papers/Active/Cole-Mahrt-Roy/LabPhon
     special issue (ETAP)/new output/"){
  require(irr)
  require(ggplot2)
  cols = seq(1:numRaters)
  kfSamp = seq(1:numSims)
  for(i in 1:numSims){
    ids = sample(cols,size=numSel,replace=TRUE)
    raters = ratings[,ids]
    kfSamp[i] = kappam.fleiss(raters)$value
  }
  df = data.frame(kappaS = kfSamp)

  ttl = paste0(prosodicType,"Number of Raters: ", numSel)

  p = ggplot(df, aes(x=kappaS)) +
    geom_histogram(aes(y=..density..),      # Histogram with density instead
         of count on y-axis
                   binwidth=.05,
                   colour="black", fill="white") + ggtitle(ttl)+
    geom_density(alpha=.2, fill="#FF6666")  # Overlay with transparent
         density plot

  setwd(idir)
  ftitle = paste0(prosodicType,"_",numSel,"_raters.png")
  png(file = ftitle, bg = "white",units="in",width = 8, height = 11, res =
      600)
  print(p)
  dev.off()
  kfMean = mean(kfSamp)
  kfSE = sd(kfSamp)
  return(list(kfMean,kfSE))
}


makeBootKappa <- function (ratings, pType, idir){
  ksSE = seq(2:31)
  ksMean = seq(2:31)
  ksDF = data.frame(ksSE=ksSE,ksMean=ksMean)
  for (i in 2:31){
   stepk = bootRating(ratings,numSel = i, numRaters = 32, numSims = 10000,
        prosodicType=pType, idir=idir)
   ksDF[i-1,1] = stepk[[2]]
   ksDF[i-1,2] = stepk[[1]]
  }
  setwd(idir)
  write.csv(ksDF,file="kappaBootStrap.csv")
}
```