Code merge - Distribution plots

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Summary

Objective

Recode **aux.plot.hist** and **aux.plot.dist** to simplify their structure.

Current issue

Sorting the covariates in the facet plot

Requirements

- main function **npde.plot.dist()**
    - input: npdeObject, which (variable to plot), dist.type (plot type, one of hist, qqplot, ecdf), "..."
    - output: one plot
- auxiliary functions **aux.npdeplot.hist()** and **aux.npdeplot.dist()**
    - input: both functions should take as input
        * a dataframe obsmat: matrix with the data to plot, with columns
            · x; variable to plot
            · category: covariate category (if "all", overall plot)
        * graphical options: plot.opt
        * distrib: reference distribution plot (one of norm, unif)
        * sim.ypl: if given, a vector of simulated data for the variable to plot
        * for aux.npdeplot.hist(), nclass (nb of classes)
    - output
        * distribution plots: histogram (aux.plot.hist), ecdf or qqplot (aux.plot.dist)
        * note: QQ-plot for uniform variable is similar to ecdf (theoretical quantiles correspond to the cumulative density function)

Defining folders, loading libraries

Loading functions

Run npde

Prepare objects

Debug auxiliary plots

Histogram

- 3 plots: no covariate, sex in 2 categories, weight in 3 categories
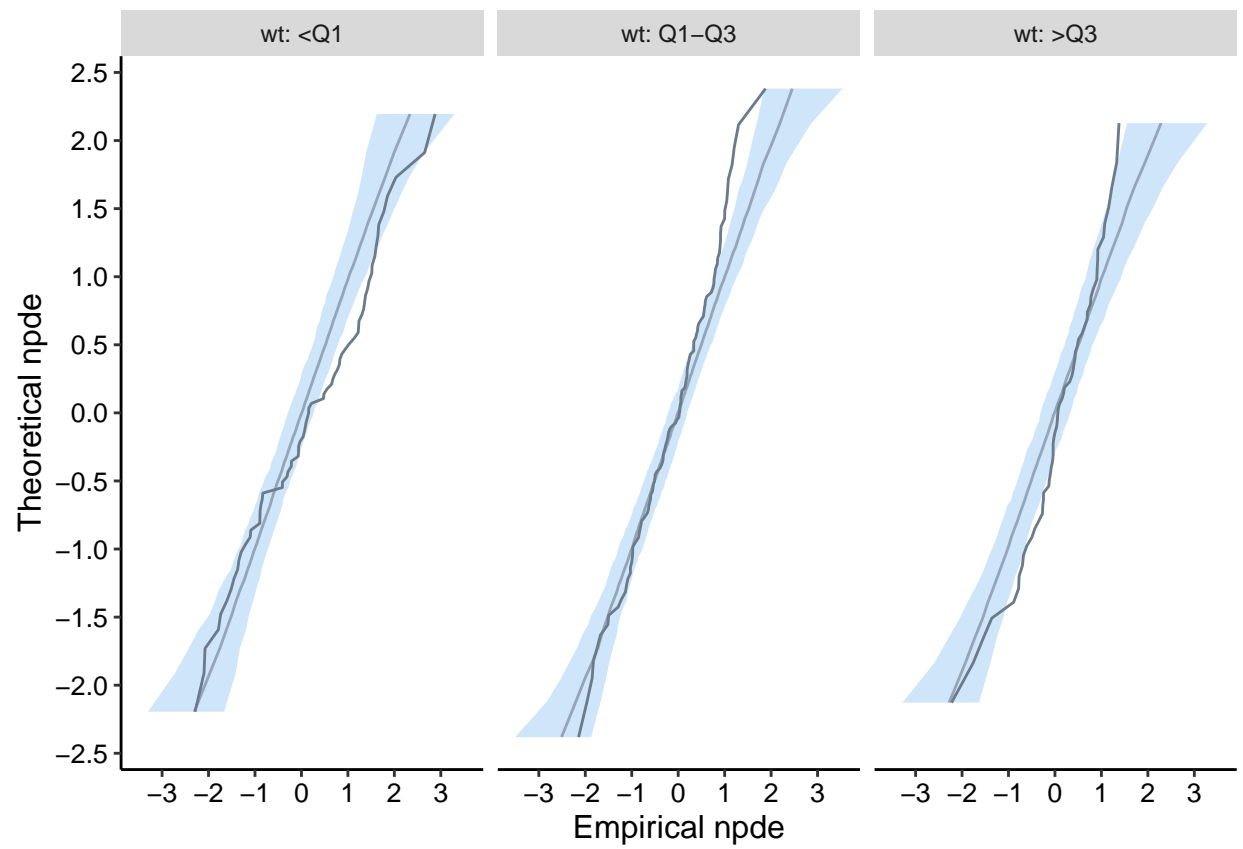- problem with sorting the categories

Distribution plot: ecdf

Distribution plot: qqplot

Debug main distribution plot function

```
source(file.path(workDir,"npde","R","plotNpde-distributionPlot.R")) # renamed from plotNpde-unitFunctio
npde.plot.dist(wbase,  which="npde", dist.type="qqplot")
```
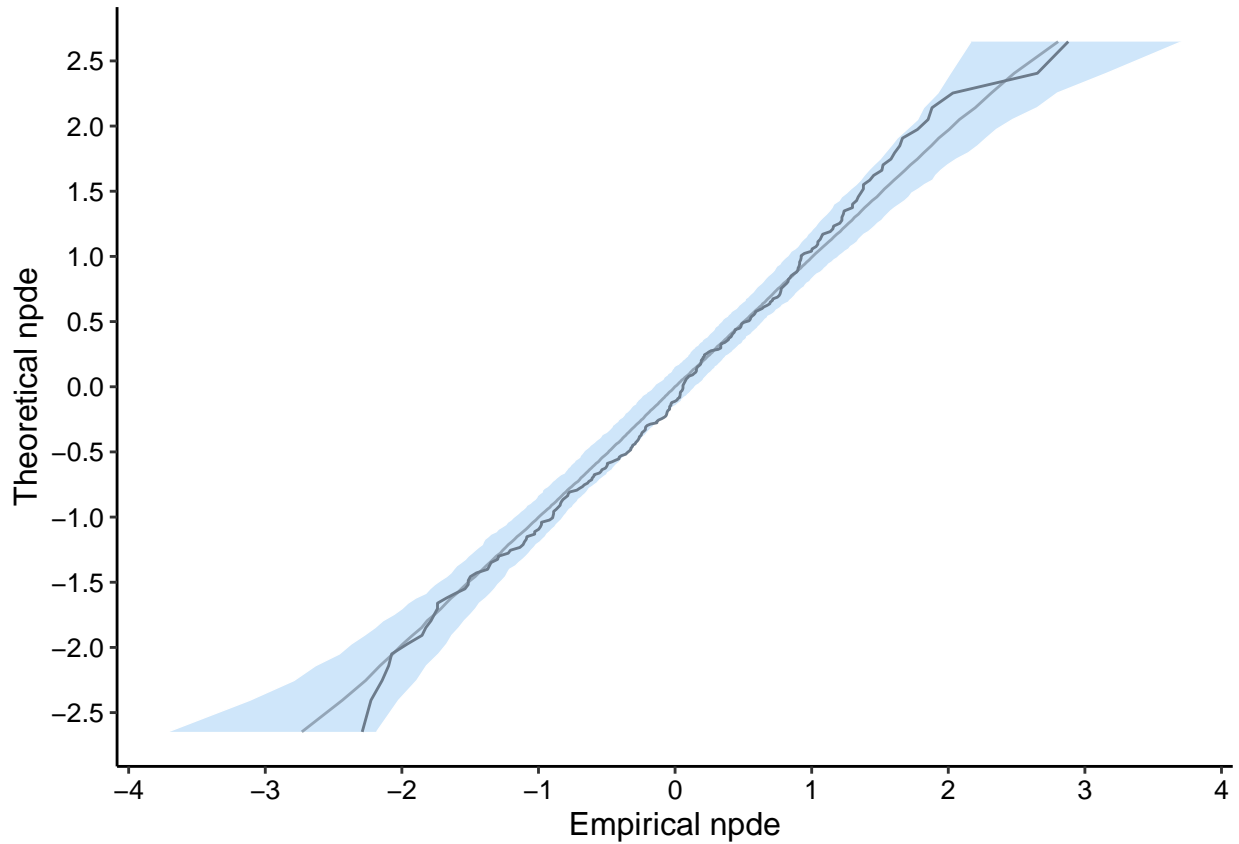


```
npde.plot.dist(wbase,  which="npde", dist.type="qqplot", covsplit=TRUE, which.cov=c("wt"))
```
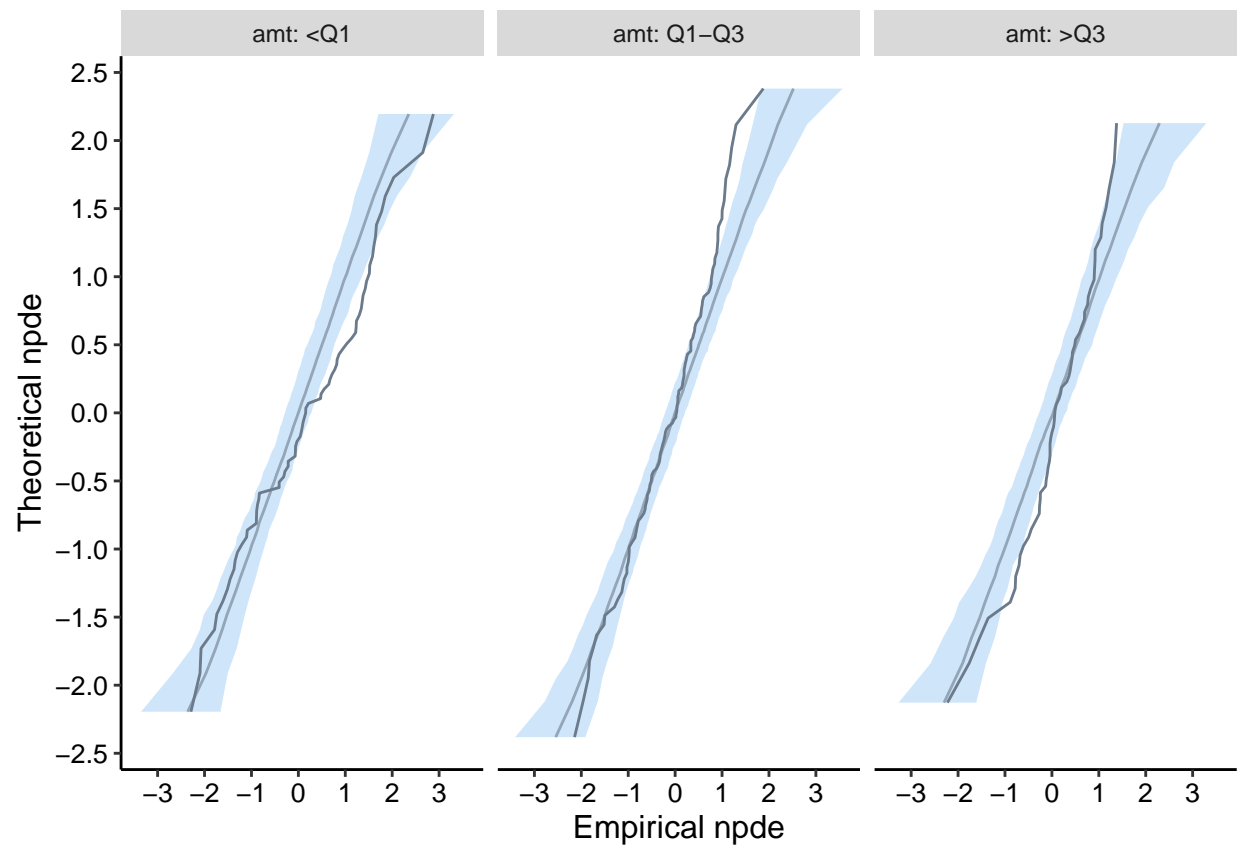
```
npde.plot.dist(wbase,  which="npde", dist.type="qqplot", covsplit=TRUE, which.cov=c("sex"))
```
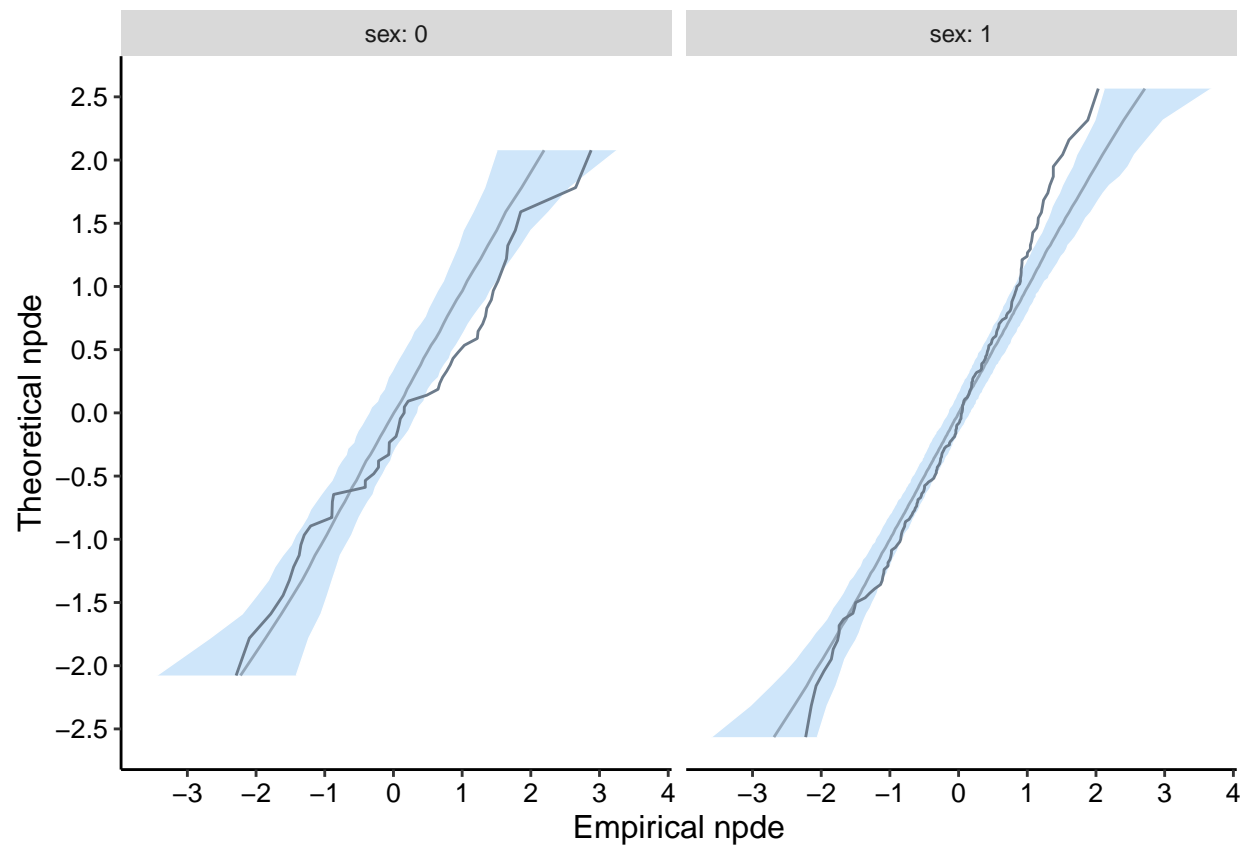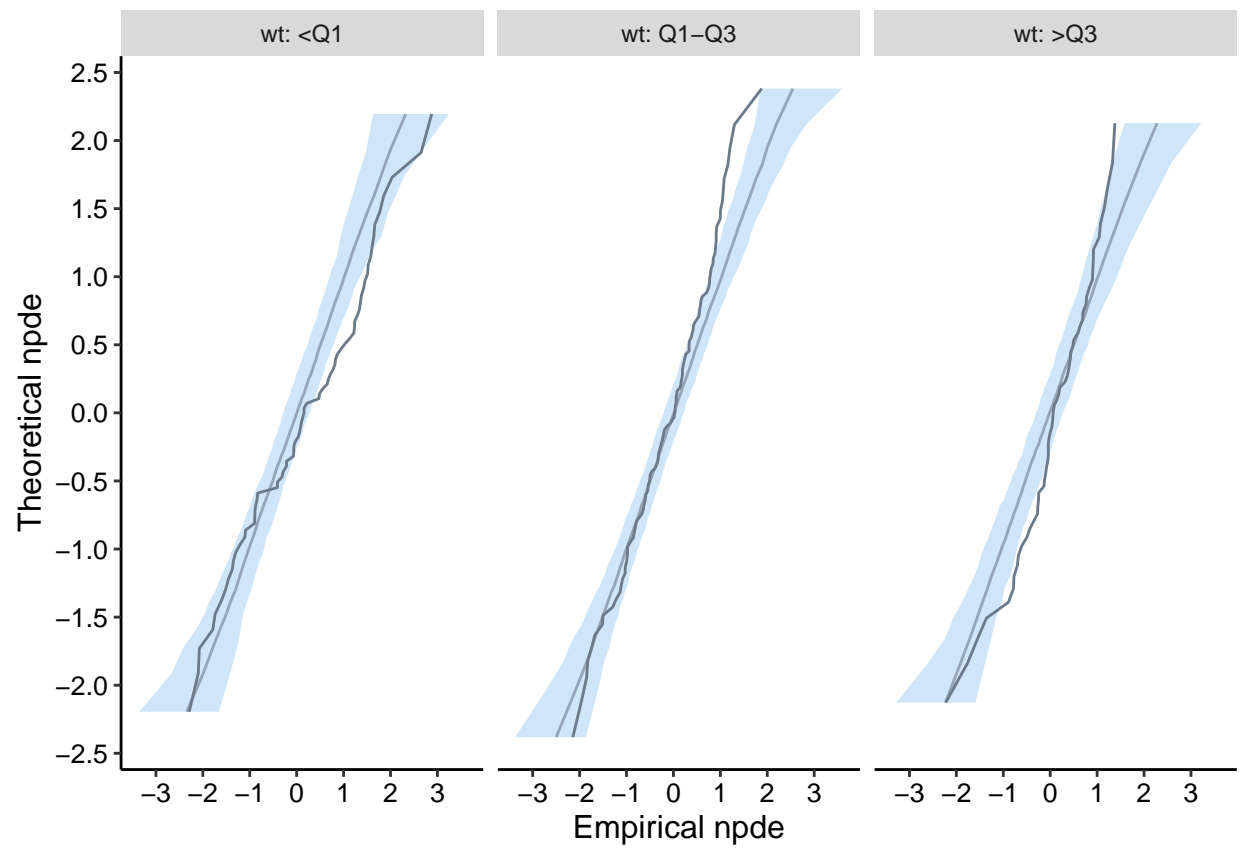
```
npde.plot.dist(wbase,  which="npde", dist.type="qqplot", covsplit=TRUE, which.cov=c("all"))
```
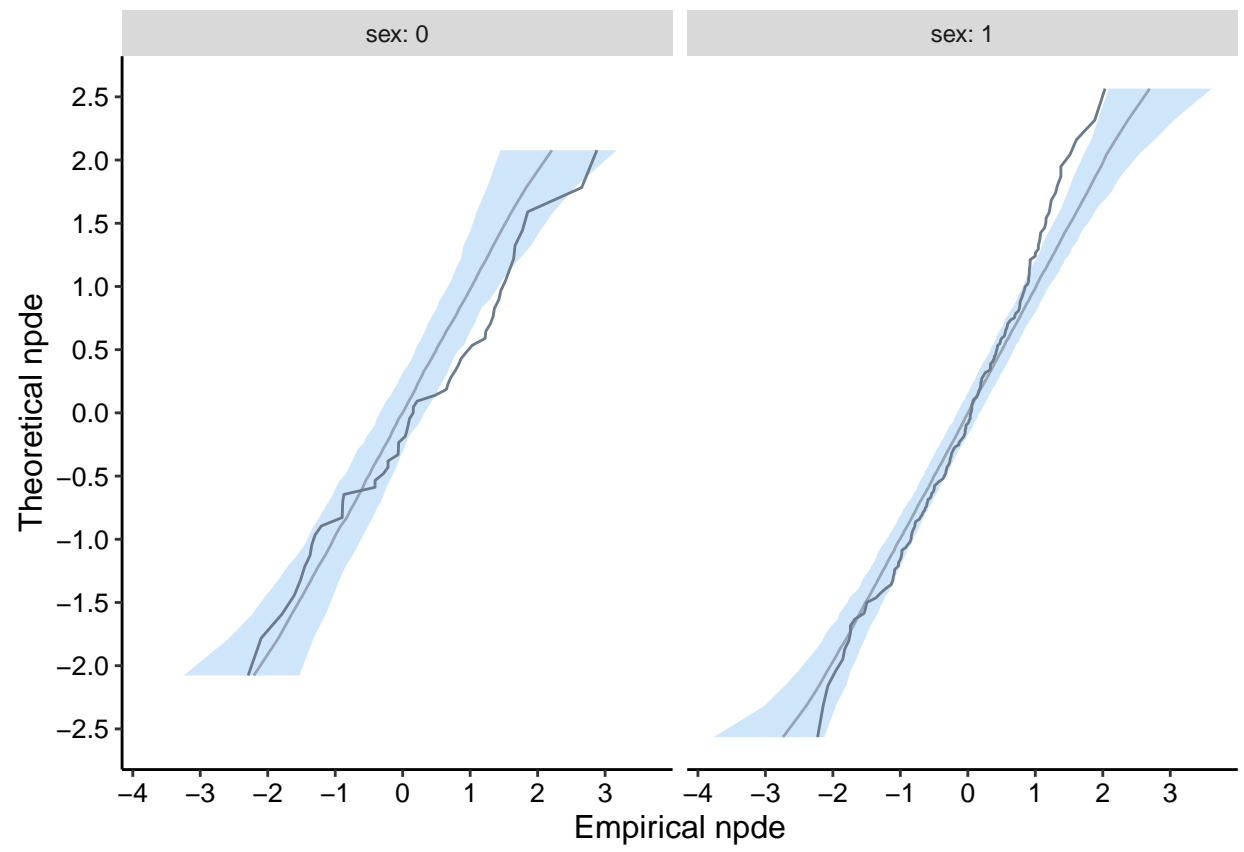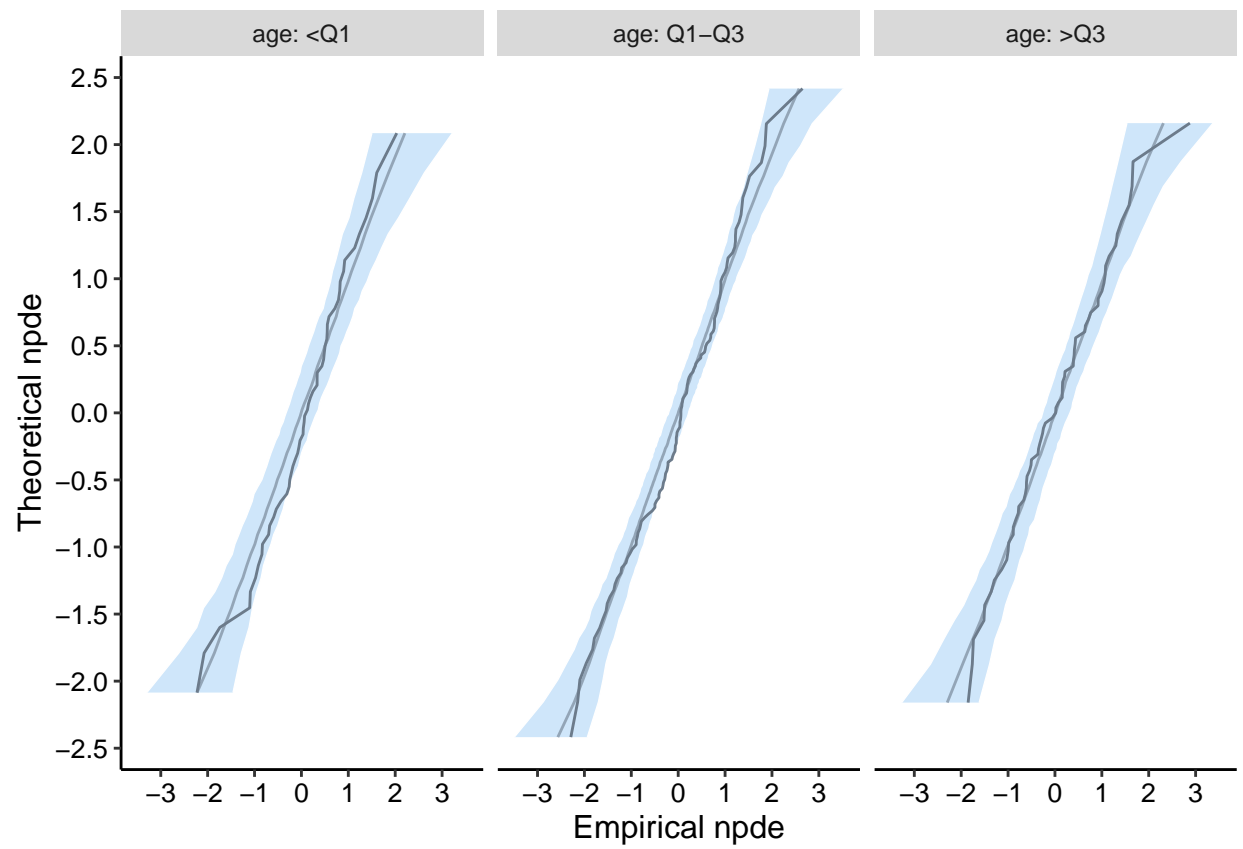
```
## [[1]]
```
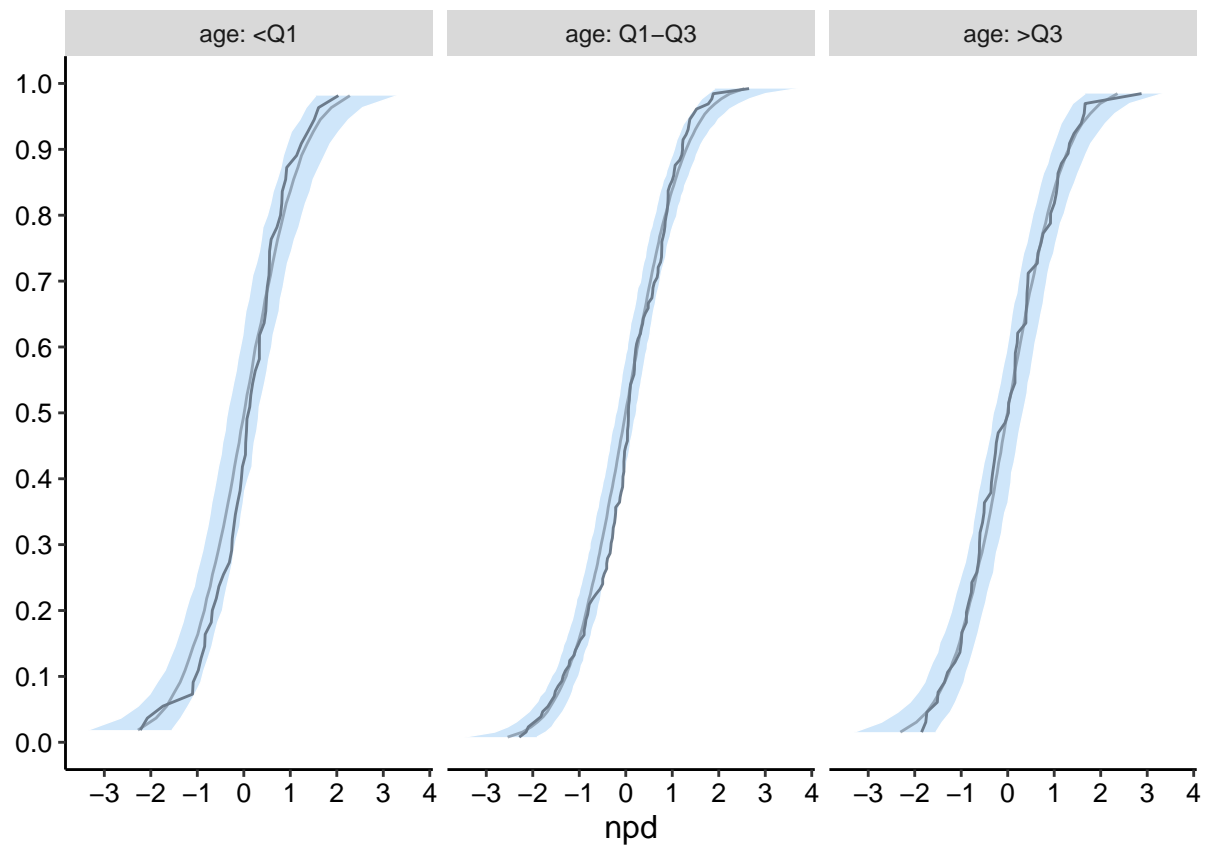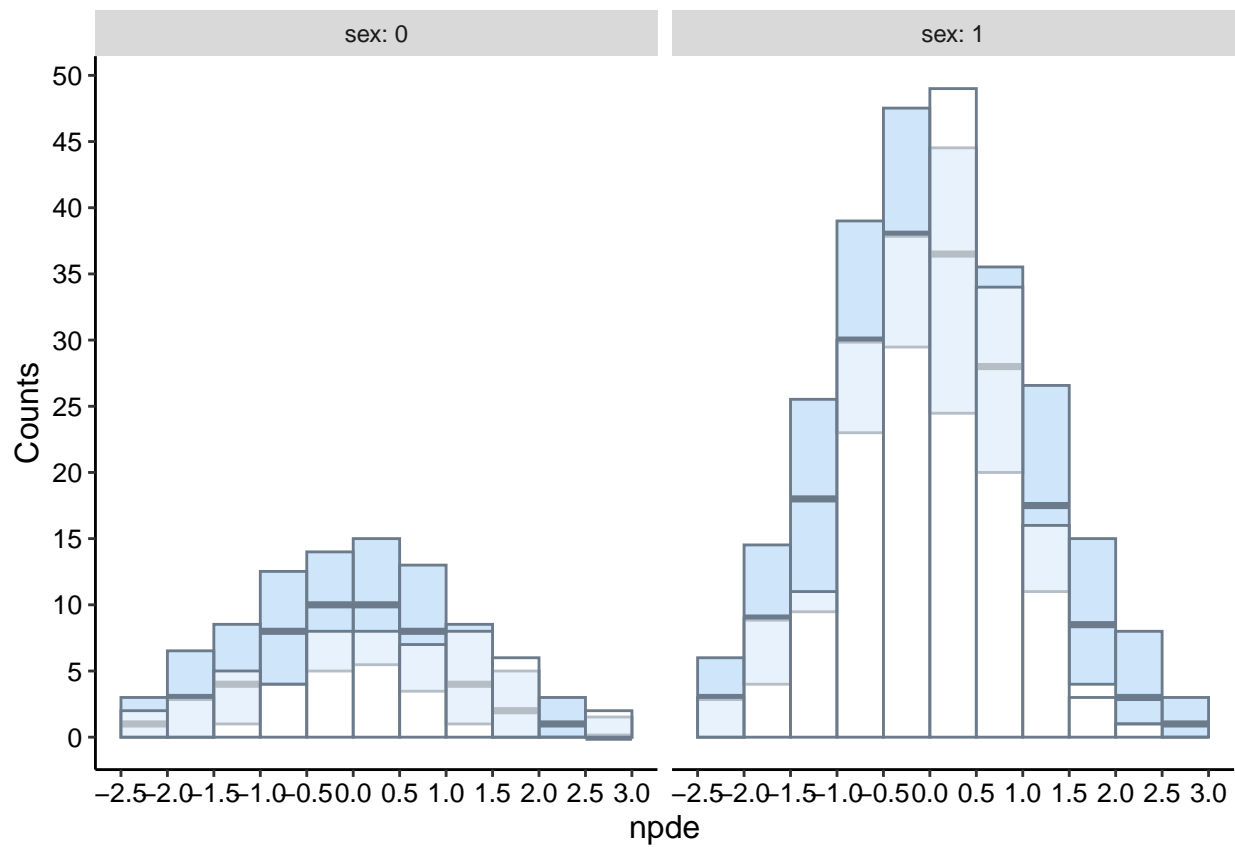
```
##
## [[2]]
```

```
##
## [[3]]
```

```
## 
## [[4]]
```

```
npde.plot.dist(wbase,  which="npde", dist.type="ecdf", covsplit=TRUE, which.cov=c("age"))
```

```
npde.plot.dist(wbase,  which="npde", dist.type="hist", covsplit=TRUE, which.cov=c("sex"))
```

```
# debut
if(FALSE) {
  npdeObj<-wbase
  plot.opt<-npdeObject@prefs
  which<-"npde"
  plot.opt$covsplit<-TRUE
  plot.opt$which.cov<-c("wt")
  dist.type="ecdf"
}
```