Neandertal Cluster Analysis

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9/15/2017

Data

The data are comprised of 84 different activities compiled from a network of about 100 hospitals across the United States. This data are published in the form of Excel files and made available through the NEISS.

NEISS collects information about product and activity related injuries. Details about the anatomical region, type of injury and other demographic variables are collected. Data about injuries are then transformed to be activity specific and aggregated to match the anatomical categories defined in Berger & Trinkaus (1995). Once body parts injuries are tabulated, the injury patterns are normalized into proportions for each activity. Below is an example:

```
##                       head_neck shoulder_arm      hand      pelvis
## acrobatics/gymnastics 0.01941748     0.526699 0.2079288 0.001618123
##                            leg      foot      trunk
## acrobatics/gymnastics 0.05582524 0.1820388 0.006472492
```

Partitioning Around Medoids (PAM)

Clustering algorithms can be used to uncover patterns that are often too subtle for humans to find. They do so by calculating the distance between observation and "clustering" observations that are close to one another. Partitioning algorithms involve explicitly supplying the number of clusters k.
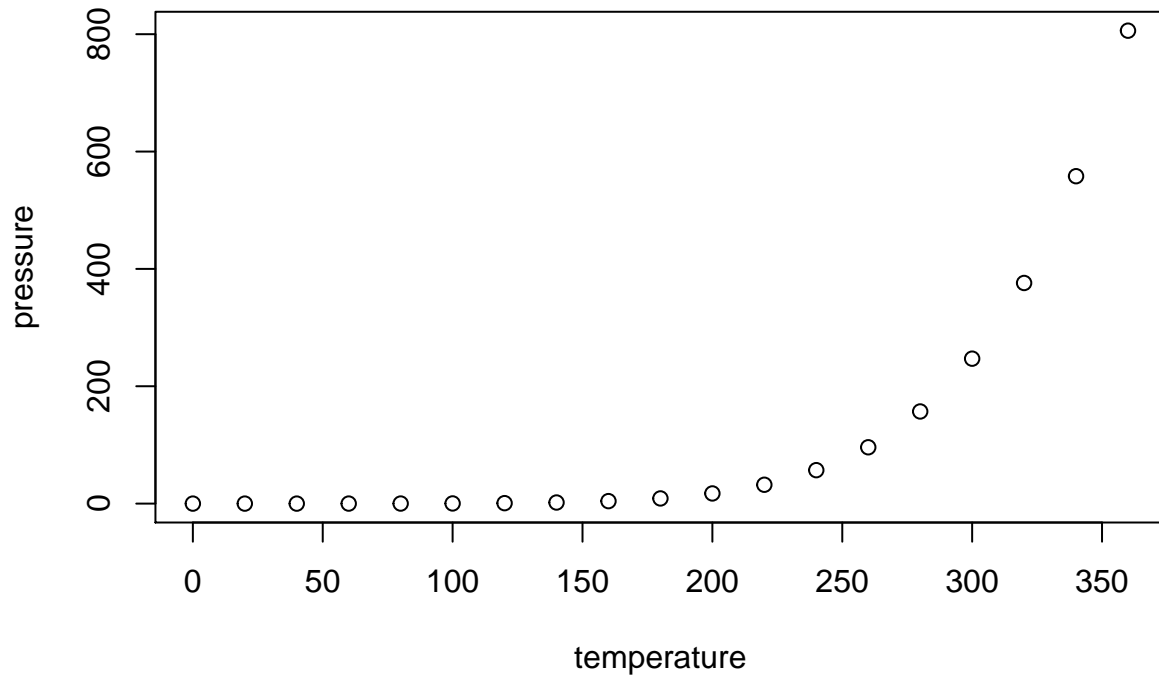
When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

```
summary(cars)
```

```
##      speed           dist
##  Min.   : 4.0   Min.   :  2.00
##  1st Qu.:12.0   1st Qu.: 26.00
##  Median :15.0   Median : 36.00
##  Mean   :15.4   Mean   : 42.98
##  3rd Qu.:19.0   3rd Qu.: 56.00
##  Max.   :25.0   Max.   :120.00
```

Including Plots

You can also embed plots, for example:

Note that the `echo = FALSE` parameter was added to the code chunk to prevent printing of the R code that generated the plot.

Berger, Thomas D, and Erik Trinkaus. 1995. "Patterns of Trauma Among the Neandertals." *Journal of Archaeological Science* 22 (6). Elsevier: 841–52.