Installing R Packages

These can expand greatly what you can do with R. Here we shall install the “psyc” package. The command is `install.packages(c("psych"))`

You can install more than one package at a time, for example, `install.packages(c("psych","GPArotation","sem","matrixcalc"))` would install four packages. After you install a package, it will appear in the R directory in (by default) your Documents folder.

This, and many other things, can be much more easily accomplished if you install RStudio, which creates a friendly interface between the user and R. Download it (free) and install it.

Here I illustrate installing the “lsr” package via RStudio. Click Tools, Install Packages.

The package is installed and the syntax is shown in the console.

```r
> install.packages("lsr")
Installing package into ‘C:/Users/Vati/Documents/R/win-library/3.2’
(as ‘lib’ is unspecified)
trying URL 'http://cran.rstudio.com/bin/windows/contrib/3.2/lsr_0.5.zip'
Content type 'application/zip' length 140849 bytes (137 KB)
```
The lsr package accompanies the book “Learning Statistics with R.”

Installing a package does not automatically make it available in the current R session. To make “psyc” available you need issue this command: `library(psych)`. This is more easily done in RStudio. In the lower right pane, click packages. You will get a list of the packages in your library. To activate a package just check it.

```
> library("psych", lib.loc="~/R/win-library/3.2")
> detach("package:psych", unload=TRUE)
> library("lsr", lib.loc="~/R/win-library/3.2")
> library("psych", lib.loc="~/R/win-library/3.2")
```

I checked “lsr”, then unchecked it, then checked it and “psyc.” As you can see from the syntax, lsr was activated, then detached, and then activated again.

```
sunita <- read.table("C:/Users/Vati/Documents/StatData/Sunita.txt", header=TRUE)
```

```
Now get some descriptives: describe(sunita)

vars  n  mean    sd median trimmed    mad min max range  skew  kurtosis
PsychDev 1 80 66.30 12.25  67.0  66.38 11.86   36  90    54 -0.03  -0.62
Feminity 2 80 61.96  8.98  61.0  61.42  8.90  46  92    46  0.66   0.68
Hypomania 3 80 69.22 11.90  70.0  69.05 11.86  40 106    66  0.24  -0.81
IAH       4 80 71.26 15.31  72.5  71.45 15.57  40 100    60  0.14  -0.81
SBS       5 80 34.31 12.69  31.0  32.59 10.38  21  89    68  1.49   2.89
K         6 80 52.16  8.29  50.0  51.45  6.67  36  75    39  0.81   0.34

se
PsychDev 1.37
Feminity 1.00
Hypomania 1.33
IAH     1.71
SBS     1.42
K       0.93
```
Notice that we get estimates of both skewness and kurtosis (the default estimates are $g_1$ and $g_2$) as well as a trimmed mean (the mean after discard the highest and lowest scores – the default is to discard the highest 10% and the lowest 10%) and the mad (median absolute deviation of scores from their median). “describeBy” can be used to obtain descriptive statistics at each level of a specified categorical variable.

- [Wuensch’s R Lessons](#)
- [Details on the describe function in the psyc package](#)
- [Overview of the psyc package](#)
- [The Entire psyc Manual](#)