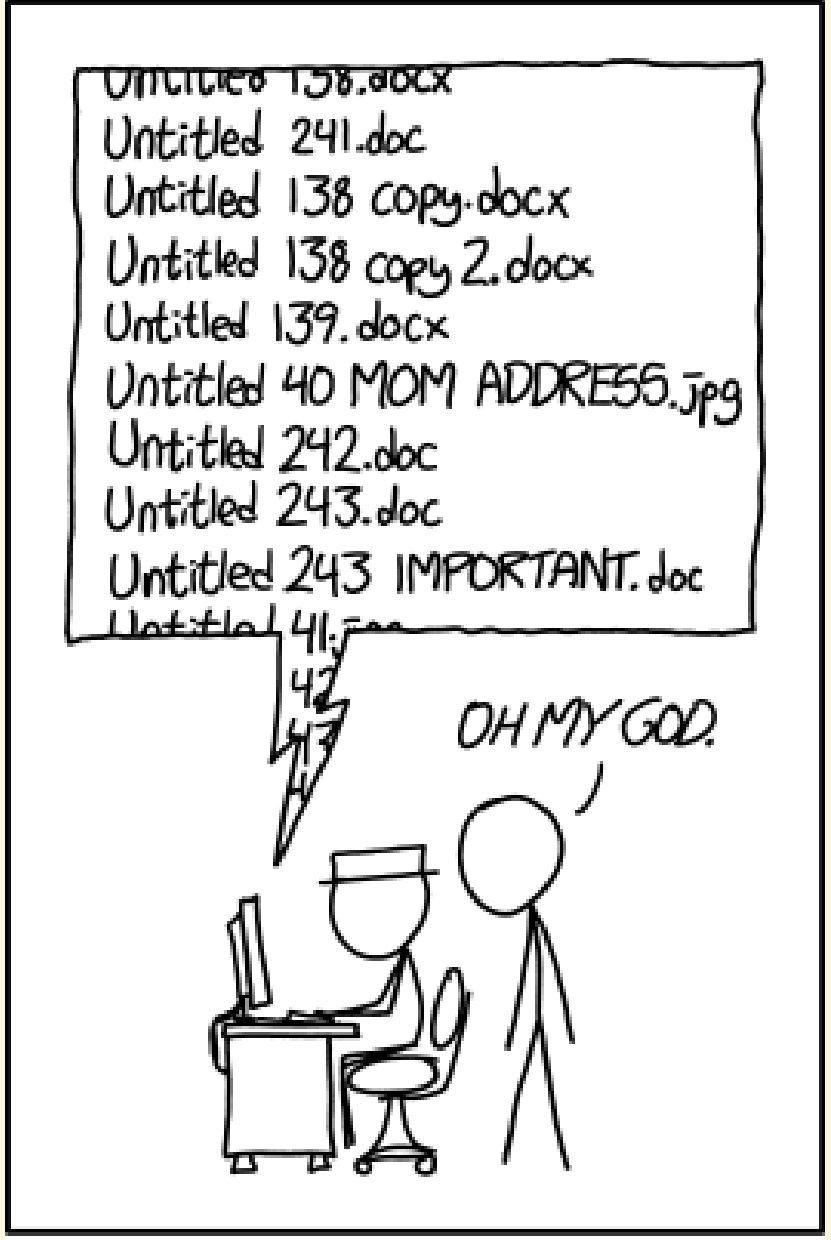
R from start to finish

2021/05/18

Keeping your analyses organised



PROTIP: NEVER LOOK IN SOMEONE ELSE'S DOCUMENTS FOLDER.

Keeping your analyses organised

You ran an experiment.

You downloaded the data.

You wrote an Rmarkdown document to process the data and run your analysis.

You wrote your report based on that output.

Where do you put all of this?

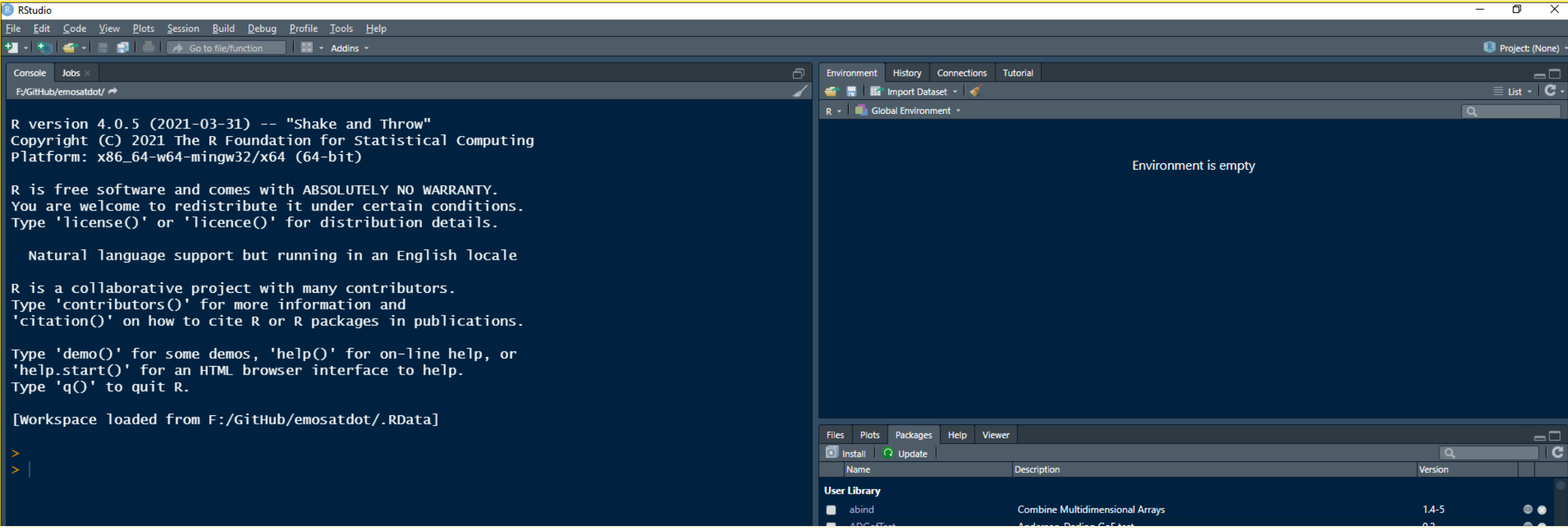
RStudio Projects

On RStudio.cloud, each project you create is in fact a completely separate instance of R

For working on your own projects (e.g. your dissertation) I recommend that you download and install RStudio Desktop

Once that's up and running, you can get to grips with RStudio projects

Projects provide a neat way to organise your work into neat, individually tailored sets of directories.


RStudio
File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function
Addins
Project: (None)
Console
Jobs
F:/GitHub/emosatdot/
R version 4.0.5 (2021-03-31) -- "Shake and Throw"
Copyright (C) 2021 The R Foundation for Statistical Computing
Platform: x86_64-w64-mingw32/x64 (64-bit)
R is free software and comes with ABSOLUTELY NO WARRANTY.
You are welcome to redistribute it under certain conditions.
Type 'license()' or 'licence()' for distribution details.
Natural language support but running in an English locale
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Type 'contributors()' for more information and
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'help.start()' for an HTML browser interface to help.
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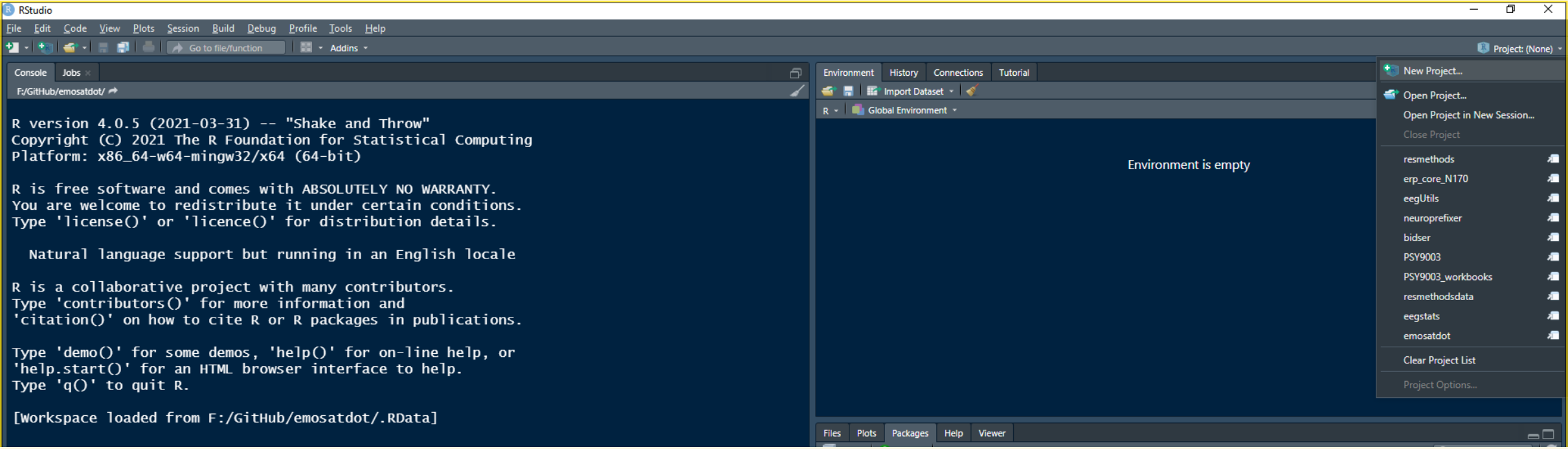
[Workspace loaded from F:/GitHub/emosatdot/.RData]
Environment
History
Connections
Tutorial
Import Dataset
List
R
Global Environment
Environment is empty
Files
Plots
Packages
Help
Viewer
Install
Update
Name
Description
Version
User Library
abind
Combine Multidimensional Arrays
1.4-5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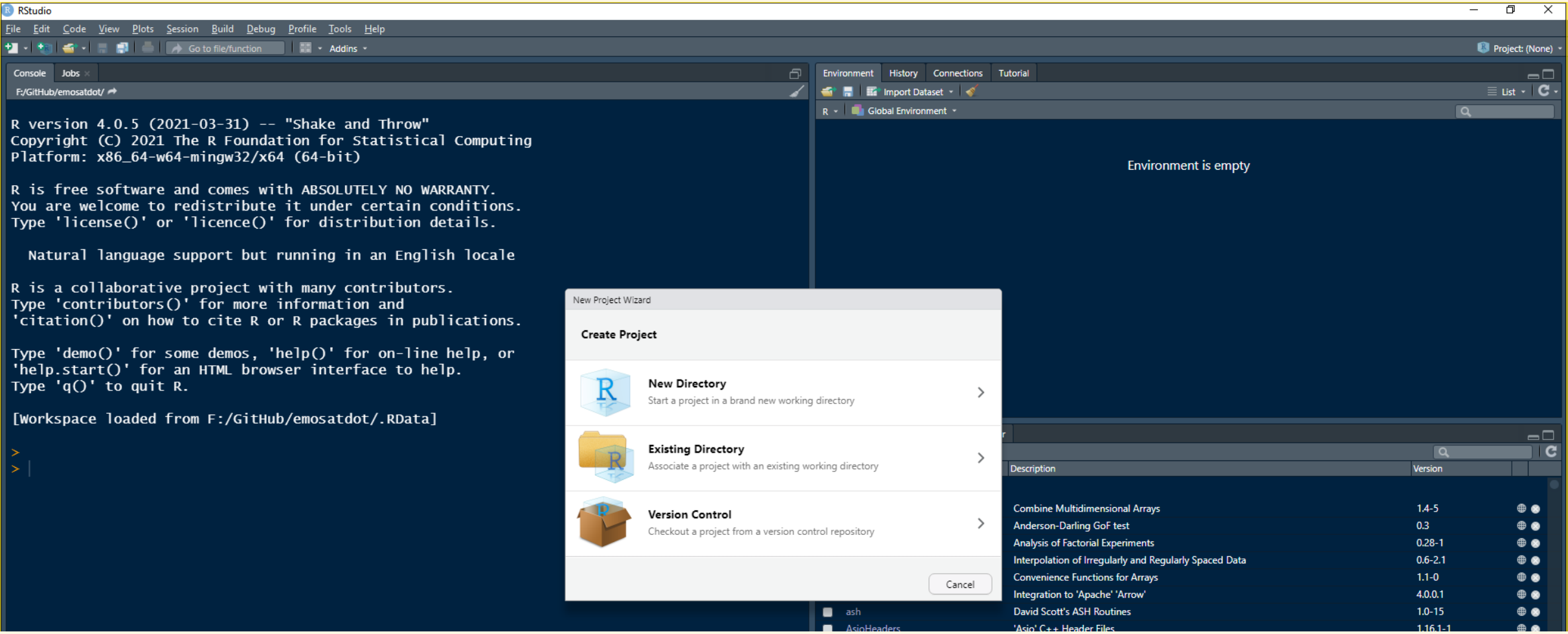
New Project...
Open Project...
Open Project in New Session...
Close Project
resmethods
erp_core_N170
eegUtils
neuroprefixer
bidser
PSY9003
PSY9003_workbooks
resmethodsdata
eegstats
emosatdot
Clear Project List
Project Options...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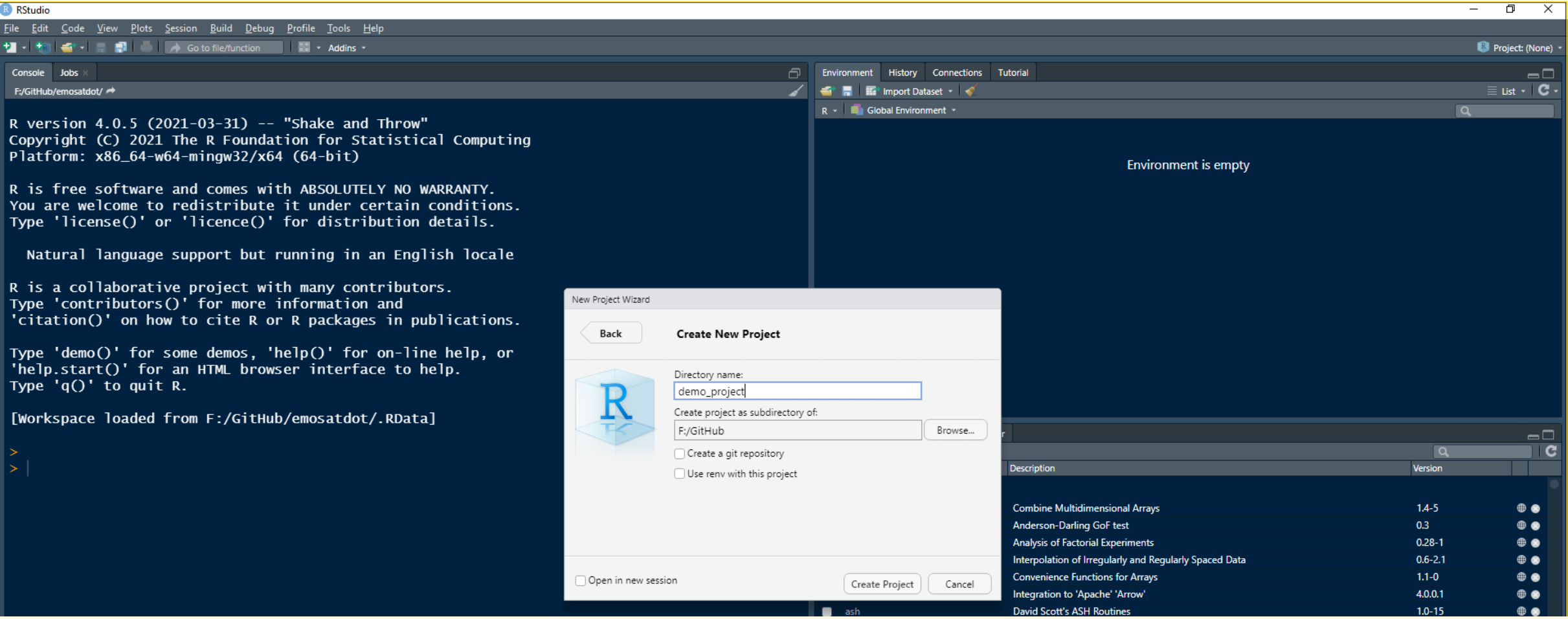
New Project Wizard
Create Project
New Directory
Start a project in a brand new working directory
Existing Directory
Associate a project with an existing working directory
Version Control
Checkout a project from a version control repository
Cancel
Description
Version
Combine Multidimensional Arrays 1.4-5
Anderson-Darling GoF test 0.3
Analysis of Factorial Experiments 0.28-1
Interpolation of Irregularly and Regularly Spaced Data 0.6-2.1
Convenience Functions for Arrays 1.1-0
Integration to 'Apache' 'Arrow' 4.0.0.1
David Scott's ASH Routines 1.0-15
ash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Back
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Directory name:
demo_project
Create project as subdirectory of:
F:/GitHub
Browse...
Create a git repository
Use renv with this project
Open in new session
Create Project
Cancel
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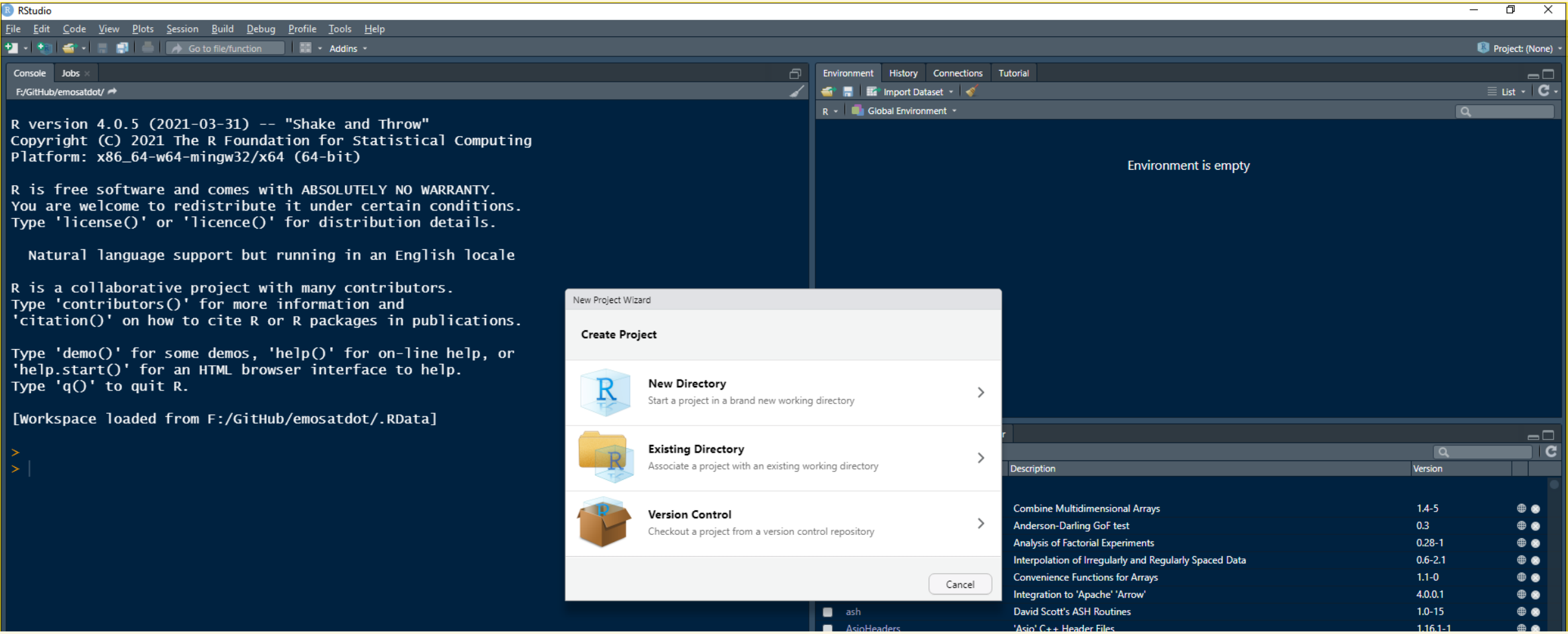
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Keeping your analyses organised

Make a new RStudio project for each separate "project" - one for your thesis, one for you assessment, and so on.

Follow sensible structure:

Keep your data in a folder called data.

Keep your scripts in a folder called scripts.

Give your files sensible names!

For more general workflow advice, check out What They Forgot to Teach You About R at https://rstats.wtf/

Watch the workflow demos!

Watch the workflow demos!

On Panopto you'll find a couple of videos for this week that demonstrate some aspects of this process.

1) A demo of processing the raw data from the Fear of Crime study

2) A demo of processing the raw data from a study of mental rotation.

These videos are *largely improvised*, far from exhaustive, and may occasionally be confusing when I become confused!

Some other things you can do with R

Create slides

All of the R based lectures are created using RMarkdown and the `xaringan` package.

Create websites and blogs

The course website was created using the `distill` package.

craddm.github.io/resmethods/

https://m-clark.github.io/distill-workshop/

Create websites and blogs

My own website and blog, www.mattcraddock.com, was created using `blogdown`

https://alison.rbind.io/post/new-year-new-blogdown/

Create interactive web apps

R, through the `shiny` package

ERP demo app

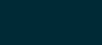
Create memes

```
library(memer)
meme_get("IsThisAPigeon") %>%
  meme_text_pigeon("Is this a research method?",
                   "Me",
                   "Memes")
```

The R community

psyTeachR - the University of Glasgow

useR

#rstats

R-Ladies Global