

Working Directories

Simon Kiss

21/01/2020

TL;DR

When you do the lessons for Chapter 3, it's a good idea to open the project folder for Chapter 3. Then you need to set the working directory to be the `dplyr` subfolder. You can do this by selecting **Session > Set Working Directory > Choose Directory**. Or you can run a `setwd('dplyr')` command. Check that you are in the `dplyr` subdirectory by running `getwd()`

More Detailed Explanation

Setting Working Directories

Up until now I have avoided getting into the nitty gritty of teaching about how to navigate working directories in R and it caused a small issue with the code in last week's chapter. I think I should tackle this explicitly now to really address this.

Put simply the working directory is where you are working in your computer's file directory structure.

Now, up until now I have had you set the working directory by asking that you open an RStudio project file. See Figure 1 to find the roject file. When you do that, the working directory is set to be the directory of the project file.

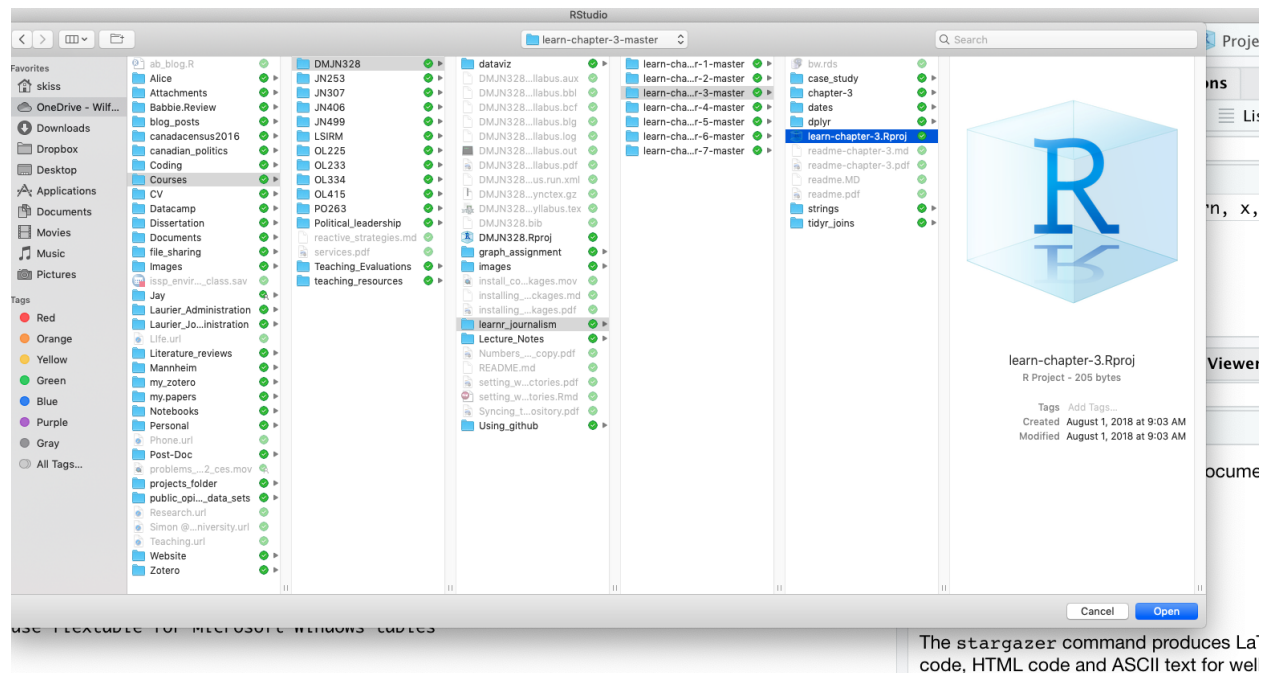


Figure 1: Finding the .rproj file for Chapter 3

When you open that file, you should see an indication that you are using that project file in the top right of RStudio (See Figure 2).

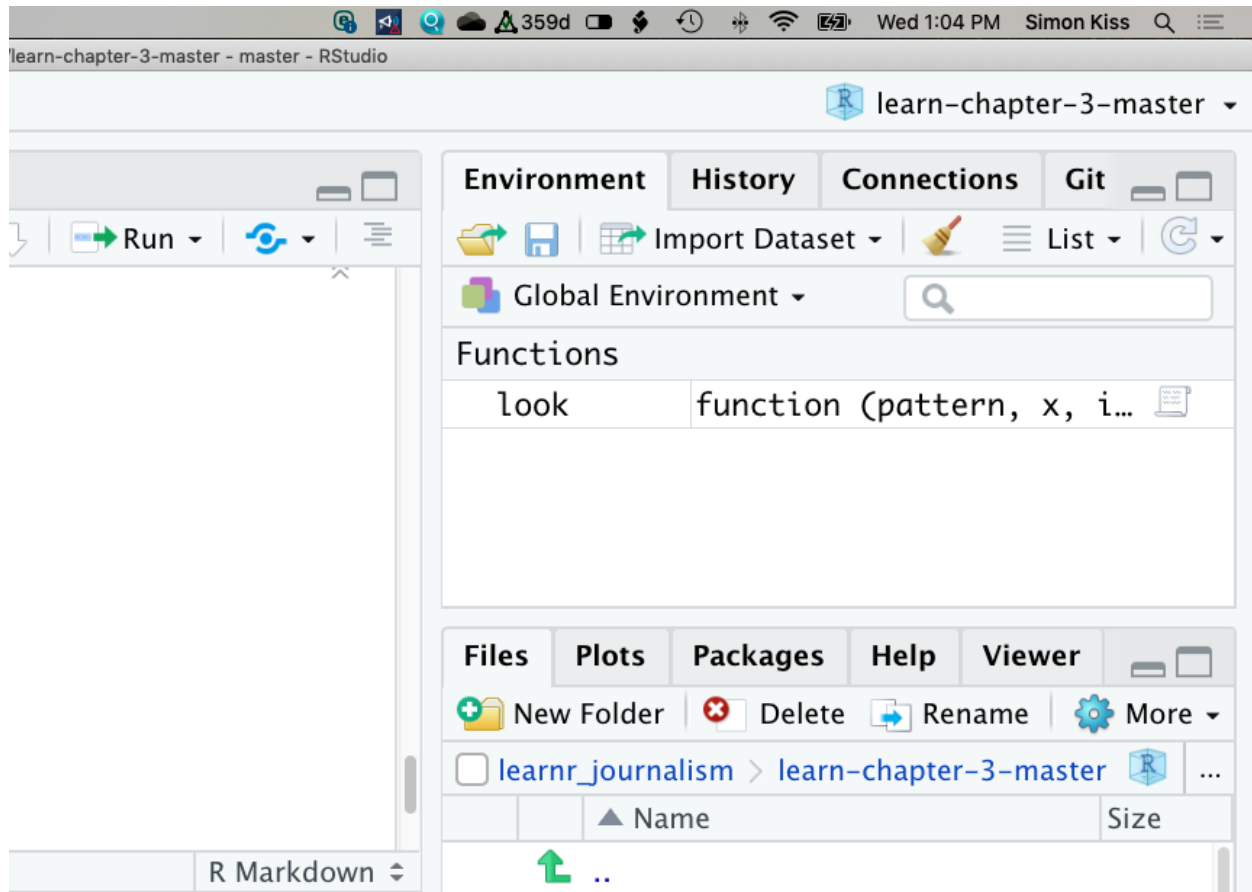


Figure 2: RStudio shows which project you are working on in the top-right of the screen.

You can find out what working directory you are in by typing the following:

```
## [1] "/Users/skiss/OneDrive - Wilfrid Laurier  
University/Courses/DMJN328/learnr_journalism/learn-chapter-3-master"
```

See how the working directory is the same as the project file?

The problem is that for this week's lessons, the code and data that we will be working with are *not* in the working directory, they are in some subdirectories. So for the code to work, we need to change the working directory.

Open the Chapter 3 .Rproj file. Look at Figure 1 to help find it.

You can check that you have the correct working directory by entering:

```
getwd()
```

```
## [1] "/Users/skiss/OneDrive - Wilfrid Laurier  
University/Courses/DMJN328/learnr_journalism/learn-chapter-3-master"
```

It should say that you are in the `learn-chapter-3-master` directory.

The first code file in the videos in chapter three is the file `pipes-dplyr.R`. Open this file by selecting **File > Open File**. Then navigate to the subfolder `dplyr` and open the file `pipes-dplyr.R`.

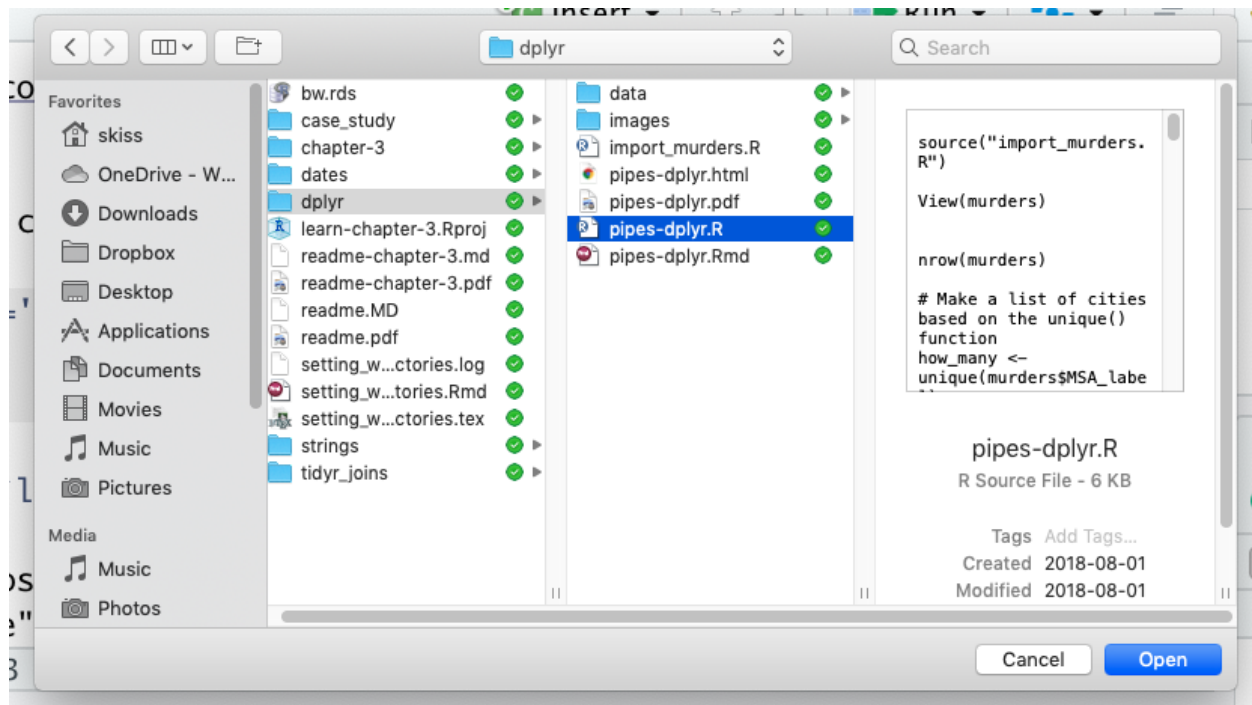


Figure 3: Opening pipes-dplyr.R

The first thing the video does is to run another R file that reads in a bunch of data. The code looks like this.

```
source("import_murders.R")
```

The reason this will not work is the file `import_murders.R` is located in the folder `learn-chapter-3-master/dplyr/`. But currently, your working directory is only `learn-chapter-3-master`. So you need to change the working directory.

There are a couple of ways to set the working directory to work properly.

With the menu

You can select **Session > Set Working Directory > Choose Directory** and you can then navigate to the `dplyr` sub. Andrew Ba Tran does something a little similar in the video.

With the `setwd()` command.

5. Change the working directory to be the directory where the file is that you need to open. RStudio has a neat feature that helps you do this quickly.

Enter `setwd('')` in to your script, and when the cursor is between the quotation marks, hit the tab key.

```
setwd("dplyr/")
```

This will bring up a dialogue box like below (see Figure 4).

Select `dplyr` and then close the quotation marks, if RStudio doesn't do that for you already. It should look like below. Execute the command with command-return (Mac) or control-enter (PC).

```
setwd("dplyr/")
```

Then check your working directory.

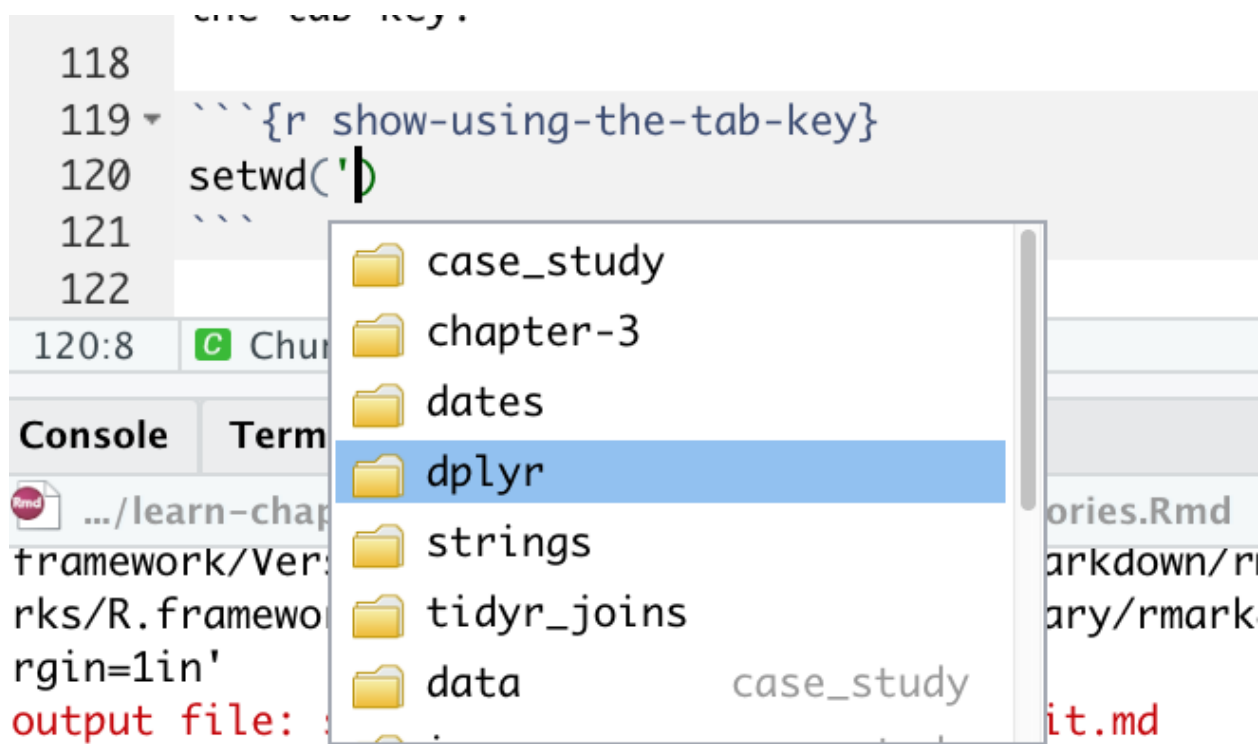


Figure 4: Using the tab key to select your working directory.

```
getwd()
```

```
## /Users/skiss/OneDrive - Wilfrid Laurier
University/Courses/DMJN328/learnr_journalism/learn-chapter-3-master/dplyr/
```

Now that you are in the right working directory, you should be able to follow along with Andrew's code easily.

```
source("import_murders.R")
```

Now the data are loaded.

```
str(murders)
```

```
## 'data.frame': 752313 obs. of 47 variables:
## $ ID : Factor w/ 719011 levels "197601001AKASP00",...: 1 2 3 4 5 6 7 8 9 10 ...
## $ CNTYFIPS : Factor w/ 3064 levels "01001",...: 75 37 37 37 49 49 51 51 2 8 ...
## $ Ori : Factor w/ 12616 levels "AK00101","AK00102",...: 31 35 37 39 58 59 68 69 75 108 ...
## $ State : Factor w/ 54 levels "Alaska","Alabama",...: 1 2 2 2 2 2 2 2 2 2 ...
## $ Agency : Factor w/ 9356 levels "24th Jud Cir Drug & Vctf",...: 1 2 2 2 2 2 2 2 2 2 ...
## $ AGENCY_A : Factor w/ 1 level "24th Jud Cir Drug & Vctf",...: 1 2 2 2 2 2 2 2 2 2 ...
## $ Agentype_label : Factor w/ 8 levels "Sheriff","County police",...: 4 3 3 3 3 3 1 3 1 3 ...
## $ Agentype_value : num 5 3 3 3 3 3 1 3 1 3 ...
## ..- attr(*, "value.labels")= Named num 9 8 7 6 5 3 2 1
## ..- attr(*, "names")= chr "Regional police" "Tribal" "Constable" "Special police" ...
## $ Source_label : Factor w/ 2 levels "MAP","FBI": 2 2 2 2 2 2 2 2 2 2 ...
## $ Source_value : num 1 1 1 1 1 1 1 1 1 1 ...
## ..- attr(*, "value.labels")= Named num 1 0
## ..- attr(*, "names")= chr "FBI" "MAP"
```

```

## $ Solved_label      : Factor w/ 2 levels "No","Yes": 2 2 2 2 2 2 2 2 2 ...
## $ Solved_value      : num  1 1 1 1 1 1 1 1 1 ...
## ..- attr(*, "value.labels")= Named num  1 0
## .. ..- attr(*, "names")= chr  "Yes" "No"
## $ Year              : num  1976 1976 1976 1976 1976 ...
## $ Month_label       : Factor w/ 12 levels "January","February",...: 1 1 1 1 1 1 1 1 1 ...
## $ Month_value       : num  1 1 1 1 1 1 1 1 1 ...
## ..- attr(*, "value.labels")= Named num  12 11 10 9 8 7 6 5 4 3 ...
## .. ..- attr(*, "names")= chr  "December" "November" "October" "September" ...
## $ Incident          : num  1 1 1 1 1 1 1 1 1 ...
## $ ActionType         : Factor w/ 2 levels "Normal update",...: 1 1 1 1 2 1 1 1 1 ...
## $ Homicide_label     : Factor w/ 2 levels "Murder and non-negligent manslaughter",...: 1 1 1 1 1 1 1 ...
## $ Homicide_value     : Factor w/ 2 levels "A","B": 1 1 1 1 1 1 1 1 1 ...
## $ Situation_label    : Factor w/ 6 levels "Single victim/single offender",...: 1 1 1 1 1 3 1 1 1 ...
## $ Situation_value    : Factor w/ 6 levels "A","B","C","D",...: 1 1 1 1 1 3 1 1 1 ...
## $ VicAge             : num  48 65 45 43 35 25 27 42 41 50 ...
## $ VicSex_label       : Factor w/ 3 levels "Female","Male",...: 2 2 1 2 2 2 1 1 2 2 ...
## $ VicSex_value       : Factor w/ 3 levels "F","M","U": 2 2 1 2 2 2 1 1 2 2 ...
## $ VicRace_label      : Factor w/ 5 levels "Asian or Pacific Islander",...: 3 2 2 2 5 2 2 2 5 5 ...
## $ VicRace_value      : Factor w/ 5 levels "A","B","I","U",...: 3 2 2 2 5 2 2 2 5 5 ...
## $ VicEthnic          : Factor w/ 3 levels "Hispanic origin",...: 3 3 3 3 3 3 3 3 3 3 ...
## $ OffAge             : num  55 67 53 35 25 26 29 19 30 42 ...
## $ OffSex_label       : Factor w/ 3 levels "Female","Male",...: 1 2 2 1 1 2 2 2 1 2 ...
## $ OffSex_value       : Factor w/ 3 levels "F","M","U": 1 2 2 1 1 2 2 2 1 2 ...
## $ OffRace_label      : Factor w/ 5 levels "Asian or Pacific Islander",...: 3 2 2 2 5 2 2 2 5 5 ...
## $ OffRace_value      : Factor w/ 5 levels "A","B","I","U",...: 3 2 2 2 5 2 2 2 5 5 ...
## $ OffEthnic          : Factor w/ 3 levels "Hispanic origin",...: 3 3 3 3 3 3 3 3 3 3 ...
## $ Weapon_label       : Factor w/ 17 levels "Firearm, type not stated",...: 6 4 4 6 15 3 2 6 4 2 ...
## $ Weapon_value       : num  20 14 14 20 80 13 12 20 14 12 ...
## ..- attr(*, "value.labels")= Named num  90 85 80 75 70 65 60 55 50 40 ...
## .. ..- attr(*, "names")= chr  "Other or type unknown" "Asphyxiation - includes death by gas" "Strangulation" ...
## $ Relationship_label : Factor w/ 29 levels "Acquaintance",...: 13 1 27 3 1 10 27 26 13 3 ...
## $ Relationship_value : Factor w/ 29 levels "AQ","BF","BR",...: 13 1 27 3 1 10 27 26 13 3 ...
## $ Circumstance_label : Factor w/ 32 levels "Rape","Robbery",...: 18 30 28 18 32 18 18 32 18 18 ...
## $ Circumstance_value : num  45 80 60 45 99 45 45 99 45 45 ...
## ..- attr(*, "value.labels")= Named num  99 81 80 70 60 59 53 52 51 50 ...
## .. ..- attr(*, "names")= chr  "Circumstances undetermined" "Felon killed by police" "Felon killed by family" ...
## $ Subcircum          : Factor w/ 7 levels "Felon attacked police officer",...: NA 5 NA NA NA NA NA NA ...
## $ VicCount           : num  0 0 0 0 0 0 0 0 0 0 ...
## $ OffCount           : num  0 0 0 0 0 2 0 0 0 0 ...
## $ FileDate           : Factor w/ 5346 levels "010181","010191",...: 1015 1015 1015 1015 1015 1015 1015 1015 ...
## $ fstate_label       : Factor w/ 55 levels "Alabama","Alaska",...: 2 1 1 1 1 1 1 1 1 ...
## $ fstate_value       : Factor w/ 51 levels "01","02",...: 2 1 1 1 1 1 1 1 1 ...
## $ MSA_label          : Factor w/ 411 levels "Abilene, TX",...: 365 36 36 36 219 219 223 223 364 15 ...
## $ MSA_value          : num  99902 13820 13820 13820 33660 ...
## ..- attr(*, "value.labels")= Named num  99956 99955 99954 99953 99951 ...
## .. ..- attr(*, "names")= chr  "Rural Wyoming" "Rural Wisconsin" "Rural West Virginia" "Rural Washington" ...

```