

FACTOR RELEVELLING EXAMPLE

A Practical Foray into Lengthy Subtitle Management, Iris Dataset Tampering,
and the Unceasing Pursuit of Stakeholder-Friendly Data Presentation.

From Markdown Mastery to Factor Finagling:

This work entitled

Factor releveiling example

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was compiled by

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Márton Kiss MD, Applied Biostatistician today()

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Chapter 1 Summary

This is a lightweight document for me to kink out the particulars of producing serious-looking but verstile documents. Rendering for 10 minutes would be unpalatable for this document, however I wanted it to serve some useful purpose besides flaunting my template.

Chapter 2 Relevelling & *Forcats*

Factors sometimes get on my nerve. Their levels' order keep changing, you want to switch between human readable (stakeholder readable) and easy-to-type names, etc.

Take a look at the '*iris*' dataset. Species is clearly a factor.

```
unique(iris$Species)
```

[1] setosa versicolor virginica Levels: setosa versicolor virginica

Lets rename some species. The below code is a bit bloated but intuitive IMHO.

```
library(dplyr)

iris_recode <- iris %>%
  mutate(Species_hr =
    forcats::fct_recode( Species,
                        smelly =
    as.character(unique(iris$Species)[1]),
                        fluffy =
    as.character(unique(iris$Species)[2])
                        #Didn't recode 'virginica' asan example
    ))
```

And to test the results, lets see what a printout would say. Can I reference said table? Lets try (??):

```
set.seed(12345)

iris_recode %>%
  .[sort(sample(nrow(.), 10)),] %>%
  knitr::kable(label = "atable",
               # NEEDS both label and caption for referencing
               caption = "Example cases from the recoded table")
```

Example cases from the recoded table

	Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species	Species_hr
2	4.9	3.0	1.4	0.2	setosa	smelly
38	4.9	3.6	1.4	0.1	setosa	smelly
51	7.0	3.2	4.7	1.4	versicolor	fluffy
58	4.9	2.4	3.3	1.0	versicolor	fluffy
75	6.4	2.9	4.3	1.3	versicolor	fluffy
86	6.0	3.4	4.5	1.6	versicolor	fluffy
93	5.8	2.6	4.0	1.2	versicolor	fluffy
96	5.7	3.0	4.2	1.2	versicolor	fluffy
142	6.9	3.1	5.1	2.3	virginica	virginica
146	6.7	3.0	5.2	2.3	virginica	virginica

3 Notes

Information regarding the compilation of this document:

```
knitr::opts_chunk$set(comment = NA)
sessionInfo() %>% report::report() %>% cat()
```

Analyses were conducted using the R Statistical language (version 4.3.0; R Core Team, 2023) on Windows 10 x64 (build 19045), using the packages rmarkdown (version 2.22; Allaire J et al., 2023), dplyr (version 1.1.2; Wickham H et al., 2023) and pagedown (version 0.20; Xie Y et al., 2022).

3.1 References

- Allaire J, Xie Y, Dervieux C, McPherson J, Luraschi J, Ushey K, Atkins A, Wickham H, Cheng J, Chang W, Iannone R (2023). *rmarkdown: Dynamic Documents for R*. R package version 2.22, <https://github.com/rstudio/rmarkdown>. Xie Y, Allaire J, Golemund G (2018). *R Markdown: The Definitive Guide*. Chapman and Hall/CRC, Boca Raton, Florida. ISBN 9781138359338, <https://bookdown.org/yihui/rmarkdown>. Xie Y, Dervieux C,

Riederer E (2020). *R Markdown Cookbook*. Chapman and Hall/CRC, Boca Raton, Florida. ISBN 9780367563837, <https://bookdown.org/yihui/rmarkdown-cookbook>.

- R Core Team (2023). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing, Vienna, Austria. <https://www.R-project.org/>.
- Wickham H, François R, Henry L, Müller K, Vaughan D (2023). *dplyr: A Grammar of Data Manipulation*. R package version 1.1.2, <https://CRAN.R-project.org/package=dplyr>.
- Xie Y, Lesur R, Thorne B, Tan X (2022). *pagedown: Paginate the HTML Output of R Markdown with CSS for Print*. R package version 0.20, <https://CRAN.R-project.org/package=pagedown>.

This document was compiled at:

```
Sys.time()
```

```
[1] "2023-06-28 16:03:16 CEST"
```

```
save.image(file = here::here("inst", "states", "cookbook_out.Rdata"))
```

4 Appendix

This is how put all your code into an appendix.

```

knitr::opts_chunk$set(echo = TRUE,
                      fig.align = 'center',
                      warning = FALSE,
                      message = FALSE)

unique(iris$Species)

library(dplyr)

iris_recode <- iris %>%
  mutate(Species_hr =
    forcats::fct_recode( Species,
                        smelly =
                          as.character(unique(iris$Species)[1]),
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                        #Didn't recode 'virginica' asan example
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set.seed(12345)

iris_recode %>%
  .[sort(sample(nrow(.),10)),] %>%
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              caption = "Example cases from the recoded table")

knitr::opts_chunk$set(comment = NA)
sessionInfo() %>% report::report() %>% cat()

Sys.time()
save.image(file = here::here("inst","states","cookbook_out.Rdata"))

# This throws a warning everytime so lets forget about it
#| tidy=TRUE

```