Making a Table

Marilyn Piccirillo

October 9, 2017

Below is code that *should* work for all models. Just run the function and save it as an `R` object. You can use this with `papaja` and the `apa_table()` function pretty easily. The trick is that if you are not using the papaja template, the proper LaTeX packages may not be loaded. You can get around this by attaching a .tex file calling the packages under "in_header: header.tex" in your YAML header. The YAML header of this .Rmd file contains the necessary syntax and the header.tex file with the proper packages.

```
## Loading tidyverse: ggplot2
## Loading tidyverse: tibble
## Loading tidyverse: tidyr
## Loading tidyverse: readr
## Loading tidyverse: purrr
## Loading tidyverse: dplyr
```

```
## Warning: package 'dplyr' was built under R version 3.4.2
```

```
## Conflicts with tidy packages ----------------------------------------------
```

```
## filter(): dplyr, stats
## lag():    dplyr, stats
```

```
## ------------------------------------------------------------------------------
```

```
## You have loaded plyr after dplyr - this is likely to cause problems.
## If you need functions from both plyr and dplyr, please load plyr first, then dplyr:
## library(plyr); library(dplyr)
```

```
## ------------------------------------------------------------------------------
```

```
##
## Attaching package: 'plyr'
```

```
## The following objects are masked from 'package:dplyr':
##
##     arrange, count, desc, failwith, id, mutate, rename, summarise,
##     summarize
```

```
## The following object is masked from 'package:purrr':
##
##     compact
```

```
##
## Attaching package: 'lubridate'
```

```
## The following object is masked from 'package:plyr':
##
##     here
```

```
## The following object is masked from 'package:base':
##
##     date
```

```
## Loading required package: Matrix
```

```
##
## Attaching package: 'Matrix'

## The following object is masked from 'package:tidyr':
##
##     expand

##
## Attaching package: 'psych'

## The following objects are masked from 'package:ggplot2':
##
##     %+%, alpha

## Warning in checkMatrixPackageVersion(): Package version inconsistency detected.
## TMB was built with Matrix version 1.2.10
## Current Matrix version is 1.2.11
## Please re-install 'TMB' from source or restore original 'Matrix' package

## Warning: package 'MuMIn' was built under R version 3.4.2

## Loading required package: arm

## Loading required package: MASS

##
## Attaching package: 'MASS'

## The following object is masked from 'package:dplyr':
##
##     select

##
## arm (Version 1.9-3, built: 2016-11-21)

## Working directory is /Users/marilynpiccirillo/1-descriptives-and-graphs-piccirillom

##
## Attaching package: 'arm'

## The following objects are masked from 'package:psych':
##
##     logit, rescale, sim

##
## Attaching package: 'merTools'

## The following object is masked from 'package:psych':
##
##     ICC

##
## Attaching package: 'reghelper'

## The following object is masked from 'package:merTools':
##
##     ICC

## The following object is masked from 'package:psych':
##
##     ICC
```

```
## The following object is masked from 'package:base':
##
##     beta

##
## Please cite as:

##  Hlavac, Marek (2015). stargazer: Well-Formatted Regression and Summary Statistics Tables.

##  R package version 5.2. http://CRAN.R-project.org/package=stargazer

## Loading required package: estimability

## Warning in read.spss("StressStudy_T1short.sav", use.value.labels = FALSE, :
## StressStudy_T1short.sav: Unrecognized record type 7, subtype 10 encountered
## in system file

## Warning in read.spss("StressStudy_T2short.sav", use.value.labels = FALSE, :
## StressStudy_T2short.sav: Unrecognized record type 7, subtype 10 encountered
## in system file

## Warning in read.spss("StressStudy_T3short.sav", use.value.labels = FALSE, :
## StressStudy_T3short.sav: Unrecognized record type 7, subtype 10 encountered
## in system file

## Using `n` as weighting variable

## # A tibble: 553 x 2
##       ID    nn
##    <dbl> <int>
##  1  1310     3
##  2  1311     3
##  3  1312     3
##  4  1313     3
##  5  1314     3
##  6  1315     3
##  7  1316     3
##  8  1317     3
##  9  1318     3
## 10  1319     3
## # ... with 543 more rows

## Using `n` as weighting variable

## # A tibble: 1 x 1
##       n
##   <int>
## 1   553

## Computing bootstrap confidence intervals ...

## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control
## $checkConv, : Model failed to converge with max|grad| = 0.00259186 (tol =
## 0.002, component 1)

## Warning in checkConv(attr(opt, "derivs"), opt$par, ctrl = control
## $checkConv, : Model failed to converge with max|grad| = 0.00268575 (tol =
## 0.002, component 1)

## Warning in norm.inter(t, alpha): extreme order statistics used as endpoints
```

```
## Warning in norm.inter(t, alpha): extreme order statistics used as endpoints

## Warning in norm.inter(t, alpha): extreme order statistics used as endpoints

## Warning in norm.inter(t, alpha): extreme order statistics used as endpoints

## Warning in norm.inter(t, alpha): extreme order statistics used as endpoints

## Warning in norm.inter(t, alpha): extreme order statistics used as endpoints
## Joining, by = "term"
## Joining, by = "term"
## Joining, by = c("term", "estimate", "lower", "upper", "type")
## Joining, by = c("term", "estimate", "type")
## Warning: Column `estimate` has different attributes on LHS and RHS of join
```

Table 1: Ugly MLM Table Example

type	term	b	CI
Fixed Parts	(Intercept)	8.87	(6.37, 9.20)
Fixed Parts	Days	-0.05	(-0.06, 0.00)
Random Parts	τ_{00}	113.04	(42.45, 188.16)
Random Parts	τ_{11}	0.01	(0.00, 0.03)
Random Parts	τ_{10}	-1.00	(1.00, 0.94)
Random Parts	$\hat{\sigma^2}$	22.13	(18.80, 22.60)
Model Terms	ICC	0.84	
Model Terms	R^2_m	0.01	
Model Terms	R^2_c	0.63	

More Advanced: `kable()` + `kableExtra`

```
library(kableExtra)
options(knitr.kable.NA = '')
knitr::kable(tab %>% #select(-type) %>%
    mutate(term = gsub("[()]", "", term)),
             caption = "Not Quite Right kableExtra MLM Table Example",
    format = "latex",
    #longtable = T,
    booktabs = T, escape = F) %>%
  # group_rows("Fixed", 1,4) %>%
  # group_rows("Random", 5,9) %>%
  # group_rows("Model", 9,11) %>%
  collapse_rows(1) %>%
  #kable_styling(latex_options = c("striped","repeat_header"),full_width = F)
  add_header_above(c(" ", " ", "Model 1" = 2))
```

Alternative: `papaja` + `apa_table()`

```
papaja::apa_table(tab %>% dplyr::select(-type),caption = "papaja MLM Table Example",
    na_string = "", stub_indents = list(Fixed = c(1:4), Random = c(5:8), Summary = c(9:11)),
```

Table 2: Not Quite Right kableExtra MLM Table Example

		Model 1	
type	term	b	CI
Fixed Parts	Intercept	8.87	(6.37, 9.20)
	Days	-0.05	(-0.06, 0.00)
Random Parts	τ_{00}	113.04	(42.45, 188.16)
	τ_{11}	0.01	(0.00, 0.03)
	τ_{10}	-1.00	(1.00, 0.94)
	$\hat{\sigma^2}$	22.13	(18.80, 22.60)
	ICC	0.84	
Model Terms	R^2_m	0.01	
Model Terms	R^2_c	0.63	

Table 3: papaja MLM Table Example

	Depression scores	
term	b	CI
Fixed		
(Intercept)	8.87	(6.37, 9.20)
Days	-0.05	(-0.06, 0.00)
τ_{00}	113.04	(42.45, 188.16)
τ_{11}	0.01	(0.00, 0.03)
Random		
τ_{10}	-1.00	(1.00, 0.94)
$\hat{\sigma^2}$	22.13	(18.80, 22.60)
ICC	0.84	
R^2_m	0.01	
Summary		
R^2_c	0.63	
NA		
NA		

```
col_spanners = list(`Depression scores` = c(2,3)))
```