

Hilgard et al 2019

Lincoln J Colling

2023-04-23

Contents

1	Introduction	2
1.1	Data download	2
2	Building files	2
	R information	4

Table 1: Files downloaded for Hilgard et al. (2019)

File name	MD5 Hash
data/master.zip	507e264b7f9de706f2877f021f28fd56

1 Introduction

This documents contains the reanalysis of the following paper:

Hilgard, J., Engelhardt, C. R., Rouder, J. N., Segert, I. L., & Bartholow, B. D. (2019). Null Effects of Game Violence, Game Difficulty, and 2D:4D Digit Ratio on Aggressive Behavior. *Psychological Science*, 30(4), 606–616.

Hilgard et al. (2019) provided analysis code along with their data. Therefore, to reproduce their results we simply tried to re-run their analysis code. The provided code was not able to successfully run on a recent install of **R** (version 4.0.0) with the most recent versions of Tidyverse. This failure was at least partly a result of breaking changes to the **dplyr** package. Hilgard et al. (2019) also provided a session information output with the **R** version and the package versions they used. However, it turned out that re-creating their exact enviroment was not trivial. Therefore, we instead decided to employ R version 3.5.2 (2018-12-20) with all packages installed from a timestamped version of MRAN (date: 2019-03-14).

The analysis code is available at <https://github.com/ljcolling/odp-hilgard>. This document is automatically built. To manually build this document, clone the git repository and run `make all`.

1.1 Data download

A total of 1 files was downloaded from <https://github.com/Joe-Hilgard/vvg-2d4d/archive/master.zip>. The downloaded files the MD5 hashes are shown in Table 1.

2 Building files

We were able to successfully built all the requires results files. The list of files we attempted to build and whether they were successfully built is shown in Table 2.

Table 2: Files downloaded for Hilgard et al. (2019)

Filename	Successfully built
aggressed-condition__hist.png	TRUE
AggressionTable.txt	TRUE
clean__data.txt	TRUE
Difficulty-EFA__hist.png	TRUE
Figure1.png	TRUE
Figure2a.png	TRUE
Figure2b.png	TRUE
full__data.RData	TRUE
full__data.txt	TRUE
Gamevars.txt	TRUE
Results.docx	TRUE
Rplots.pdf	TRUE
session__info.txt	TRUE
SuppFigure1.png	TRUE
Supplement.pdf	TRUE
violence-condition__hist.png	TRUE

R information

We performed our analysis on R version 3.5.2 (2018-12-20) with all packages installed from a timestamped version of MRAN (date: 2019-03-14). The following R packages were used: R Core Team (2018), Morey and Rouder (2018), Robinson and Hayes (2018), Henningsen (2017), Plummer et al. (2018), Wickham, Hester, and Chang (2018), Wickham et al. (2019), Lenth (2019), Wickham (2019a), Zeileis and Croissant (2018), Wickham, Chang, et al. (2018), Müller (2017), Hilgard (2020), Harrell (2019), Sarkar (2018), Lenth (2018), Spinu et al. (2018), Bates and Maechler (2018), Toomet et al. (2015), Kelley (2018), Henningsen and Toomet (2016), Christensen (2019), Revelle (2019), Henry and Wickham (2019), Wickham, Hester, and Francois (2018), Wickham and Bryan (2019), Allaire et al. (2018), Harrell, Jr. (2019), Koenker and Ng (2017), Wickham (2019b), Therneau (2018), Müller and Wickham (2019), Wickham and Henry (2019), Wickham (2017), Wickham and Bryan (2018).

References

- Allaire, J., Xie, Y., McPherson, J., Luraschi, J., Ushey, K., Atkins, A., Wickham, H., Cheng, J., Chang, W., & Iannone, R. (2018). *Rmarkdown: Dynamic documents for r* [R package version 1.11]. <https://CRAN.R-project.org/package=rmarkdown>
- Bates, D., & Maechler, M. (2018). *Matrix: Sparse and dense matrix classes and methods* [R package version 1.2-15]. <https://CRAN.R-project.org/package=Matrix>
- Christensen, R. H. B. (2019). *Ordinal: Regression models for ordinal data* [R package version 2019.3-9]. <https://CRAN.R-project.org/package=ordinal>
- Harrell, F. E., Jr. (2019). *Hmisc: Harrell miscellaneous* [R package version 4.2-0]. <https://CRAN.R-project.org/package=Hmisc>
- Harrell, Jr., F. E. (2019). *Rms: Regression modeling strategies* [R package version 5.1-3]. <https://CRAN.R-project.org/package=rms>
- Henningsen, A. (2017). *Censreg: Censored regression (tobit) models* [R package version 0.5-26]. <https://CRAN.R-project.org/package=censReg>
- Henningsen, A., & Toomet, O. (2016). *MiscTools: Miscellaneous tools and utilities* [R package version 0.6-22]. <https://CRAN.R-project.org/package=miscTools>
- Henry, L., & Wickham, H. (2019). *Purrr: Functional programming tools* [R package version 0.3.1]. <https://CRAN.R-project.org/package=purrr>

- Hilgard, J. (2020). *Hilgard: Miscellaneous hilgard convenience functions* [R package version 0.0.0.1].
- Hilgard, J., Engelhardt, C. R., Rouder, J. N., Segert, I. L., & Bartholow, B. D. (2019). Null effects of game violence, game difficulty, and 2d:4d digit ratio on aggressive behavior [PMID: 30843758]. *Psychological Science*, 30(4), 606–616. <https://doi.org/10.1177/0956797619829688>
- Kelley, K. (2018). *Mbess: The mbess r package* [R package version 4.4.3]. <https://CRAN.R-project.org/package=MBESS>
- Koenker, R., & Ng, P. (2017). *Sparsem: Sparse linear algebra* [R package version 1.77]. <https://CRAN.R-project.org/package=SparseM>
- Lenth, R. (2018). *Lsmeans: Least-squares means* [R package version 2.30-0]. <https://CRAN.R-project.org/package=lsmeans>
- Lenth, R. (2019). *Emmeans: Estimated marginal means, aka least-squares means* [R package version 1.3.3]. <https://CRAN.R-project.org/package=emmeans>
- Morey, R. D., & Rouder, J. N. (2018). *Bayesfactor: Computation of bayes factors for common designs* [R package version 0.9.12-4.2]. <https://CRAN.R-project.org/package=BayesFactor>
- Müller, K. (2017). *Here: A simpler way to find your files* [R package version 0.1]. <https://CRAN.R-project.org/package=here>
- Müller, K., & Wickham, H. (2019). *Tibble: Simple data frames* [R package version 2.0.1]. <https://CRAN.R-project.org/package=tibble>
- Plummer, M., Best, N., Cowles, K., Vines, K., Sarkar, D., Bates, D., Almond, R., & Magnusson, A. (2018). *Coda: Output analysis and diagnostics for mcmc* [R package version 0.19-2]. <https://CRAN.R-project.org/package=coda>
- R Core Team. (2018). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. Vienna, Austria. <https://www.R-project.org/>
- Revelle, W. (2019). *Psych: Procedures for psychological, psychometric, and personality research* [R package version 1.8.12]. <https://CRAN.R-project.org/package=psych>
- Robinson, D., & Hayes, A. (2018). *Broom: Convert statistical analysis objects into tidy tibbles* [R package version 0.5.1]. <https://CRAN.R-project.org/package=broom>
- Sarkar, D. (2018). *Lattice: Trellis graphics for r* [R package version 0.20-38]. <https://CRAN.R-project.org/package=lattice>
- Spinu, V., Grolemond, G., & Wickham, H. (2018). *Lubridate: Make dealing with dates a little easier* [R package version 1.7.4]. <https://CRAN.R-project.org/package=lubridate>

- Therneau, T. M. (2018). *Survival: Survival analysis* [R package version 2.43-3]. <https://CRAN.R-project.org/package=survival>
- Toomet, O., Henningsen, A., with contributions from Spencer Graves, & Croissant, Y. (2015). *Maxlik: Maximum likelihood estimation and related tools* [R package version 1.3-4]. <https://CRAN.R-project.org/package=maxLik>
- Wickham, H. (2017). *Tidyverse: Easily install and load the 'tidyverse'* [R package version 1.2.1]. <https://CRAN.R-project.org/package=tidyverse>
- Wickham, H. (2019a). *Forcats: Tools for working with categorical variables (factors)* [R package version 0.4.0]. <https://CRAN.R-project.org/package=forcats>
- Wickham, H. (2019b). *Stringr: Simple, consistent wrappers for common string operations* [R package version 1.4.0]. <https://CRAN.R-project.org/package=stringr>
- Wickham, H., & Bryan, J. (2018). *Usethis: Automate package and project setup* [R package version 1.4.0]. <https://CRAN.R-project.org/package=usethis>
- Wickham, H., & Bryan, J. (2019). *Readxl: Read excel files* [R package version 1.3.1]. <https://CRAN.R-project.org/package=readxl>
- Wickham, H., Chang, W., Henry, L., Pedersen, T. L., Takahashi, K., Wilke, C., & Woo, K. (2018). *Ggplot2: Create elegant data visualisations using the grammar of graphics* [R package version 3.1.0]. <https://CRAN.R-project.org/package=ggplot2>
- Wickham, H., François, R., Henry, L., & Müller, K. (2019). *Dplyr: A grammar of data manipulation* [R package version 0.8.0.1]. <https://CRAN.R-project.org/package=dplyr>
- Wickham, H., & Henry, L. (2019). *Tidyr: Easily tidy data with 'spread()' and 'gather()' functions* [R package version 0.8.3]. <https://CRAN.R-project.org/package=tidyr>
- Wickham, H., Hester, J., & Chang, W. (2018). *Devtools: Tools to make developing r packages easier* [R package version 2.0.1]. <https://CRAN.R-project.org/package=devtools>
- Wickham, H., Hester, J., & François, R. (2018). *Readr: Read rectangular text data* [R package version 1.3.1]. <https://CRAN.R-project.org/package=readr>
- Zeileis, A., & Croissant, Y. (2018). *Formula: Extended model formulas* [R package version 1.2-3]. <https://CRAN.R-project.org/package=Formula>