

1 Writing an academic paper using papaja and RStudio: A moderated mediation diary study

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Abstract

One or two sentences providing a **basic introduction** to the field, comprehensible to a scientist in any discipline.

Two to three sentences of **more detailed background**, comprehensible to scientists in related disciplines.

One sentence clearly stating the **general problem** being addressed by this particular study.

One sentence summarizing the main result (with the words “**here we show**” or their equivalent).

Two or three sentences explaining what the **main result** reveals in direct comparison to what was thought to be the case previously, or how the main result adds to previous knowledge.

One or two sentences to put the results into a more **general context**.

Two or three sentences to provide a **broader perspective**, readily comprehensible to a scientist in any discipline.

Keywords: motivation, cognition, zombies, pancakes

Word count: 1356

Writing an academic paper using papaja and RStudio: A moderated mediation diary study

Life is hard. And so is writing the introduction to a paper. Here I have quoted some sources (Alfes, Shantz, & Alahakone, 2016; Barrick & Parks-Leduc, 2019). And here I have quoted even more (Gurbuz, 2009; Koopman et al., 2019; Robison & Unsworth, 2018). It should be clear by now that this is a really good paper. Thus, we hypothesize:

H1: This is an awesome paper.

I like pancakes

Pancakes are good (Deci, Olafsen, & Ryan, 2017; Demerouti, Bakker, & Halbesleben, 2015). I could eat pancakes all day.

H2: This hypothesis is better than the last one.

Methods

Participants

Our sample consisted of 100 first-year psychology students, of which sixty-six were female and thirty-four were male. The mean age was 23.69 years ($SD = 4.71$).

Material

Procedure

Data analysis

We used R (Version 3.6.2; R Core Team, 2019) and the R-packages *dplyr* (Version 0.8.3; Wickham et al., 2019), *forcats* (Version 0.4.0; Wickham, 2019a), *ggplot2* (Version 3.2.1; Wickham, 2016), *papaja* (Version 0.1.0.9942; Aust & Barth, 2020), *psych* (Version

47 1.8.12; Revelle, 2018), *purrr* (Version 0.3.3; Henry & Wickham, 2019), *readr* (Version 1.3.1;
48 Wickham, Hester, & Francois, 2018), *stringr* (Version 1.4.0; Wickham, 2019b), *tibble*
49 (Version 2.1.3; Müller & Wickham, 2019), *tidyr* (Version 1.0.2; Wickham & Henry, 2020),
50 and *tidyverse* (Version 1.2.1; Wickham, 2017) for all our analyses.

51 **Results**

52 Table 1 shows the means, standard deviations and correlations between all study
53 variables.

54 **Discussion**

55 Without a doubt, there is a lot to discuss. As shown in figure 1, our findings indicate
56 several things.

References

- Alfes, K., Shantz, A., & Alahakone, R. (2016). Testing additive versus interactive effects of person-organization fit and organizational trust on engagement and performance. *Personnel Review*, 45(6), 1323–1339. <https://doi.org/10.1108/PR-02-2015-0029>
- Aust, F., & Barth, M. (2020). *papaja: Create APA manuscripts with R Markdown*. Retrieved from <https://github.com/crsh/papaja>
- Barrick, M. R., & Parks-Leduc, L. (2019). Selection for Fit. *Annual Review of Organizational Psychology and Organizational Behavior*, 6(1), 171–193. <https://doi.org/10.1146/annurev-orgpsych-012218-015028>
- Deci, E. L., Olafsen, A. H., & Ryan, R. M. (2017). Self-Determination Theory in Work Organizations: The State of a Science. *Annual Review of Organizational Psychology and Organizational Behavior*, 4(1), 19–43. <https://doi.org/10.1146/annurev-orgpsych-032516-113108>
- Demerouti, E., Bakker, A. B., & Halbesleben, J. R. B. (2015). Productive and counterproductive job crafting: A daily diary study. *Journal of Occupational Health Psychology*, 20(4), 457–469. <https://doi.org/10.1037/a0039002>
- Gurbuz, S. (2009). Some Possible Antecedents of Military Personnel Organizational Citizenship Behavior. *Military Psychology*, 21(2), 200–215. <https://doi.org/10.1080/08995600802574621>
- Henry, L., & Wickham, H. (2019). *Purrr: Functional programming tools*. Retrieved from <https://CRAN.R-project.org/package=purrr>
- Koopman, J., Rosen, C. C., Gabriel, A. S., Puranik, H., Johnson, R. E., & Ferris, D. L. (2019). Why and for whom does the pressure to help hurt others? Affective and cognitive mechanisms linking helping pressure to workplace deviance. *Personnel Psychology*, peps.12354. <https://doi.org/10.1111/peps.12354>

- 82 Müller, K., & Wickham, H. (2019). *Tibble: Simple data frames*. Retrieved from
83 <https://CRAN.R-project.org/package=tibble>
- 84 R Core Team. (2019). *R: A language and environment for statistical computing*. Vienna,
85 Austria: R Foundation for Statistical Computing. Retrieved from
86 <https://www.R-project.org/>
- 87 Revelle, W. (2018). *Psych: Procedures for psychological, psychometric, and personality*
88 *research*. Evanston, Illinois: Northwestern University. Retrieved from
89 <https://CRAN.R-project.org/package=psych>
- 90 Robison, M. K., & Unsworth, N. (2018). Pupillometry tracks fluctuations in working
91 memory performance. *PsyArXiv*. <https://doi.org/10/gdz63r>
- 92 Wickham, H. (2016). *Ggplot2: Elegant graphics for data analysis*. Springer-Verlag New
93 York. Retrieved from <https://ggplot2.tidyverse.org>
- 94 Wickham, H. (2017). *Tidyverse: Easily install and load the 'tidyverse'*. Retrieved from
95 <https://CRAN.R-project.org/package=tidyverse>
- 96 Wickham, H. (2019a). *Forcats: Tools for working with categorical variables (factors)*.
97 Retrieved from <https://CRAN.R-project.org/package=forcats>
- 98 Wickham, H. (2019b). *Stringr: Simple, consistent wrappers for common string operations*.
99 Retrieved from <https://CRAN.R-project.org/package=stringr>
- 100 Wickham, H., François, R., Henry, L., & Müller, K. (2019). *Dplyr: A grammar of data*
101 *manipulation*. Retrieved from <https://CRAN.R-project.org/package=dplyr>
- 102 Wickham, H., & Henry, L. (2020). *Tidyr: Tidy messy data*. Retrieved from
103 <https://CRAN.R-project.org/package=tidyr>
- 104 Wickham, H., Hester, J., & Francois, R. (2018). *Readr: Read rectangular text data*.
105 Retrieved from <https://CRAN.R-project.org/package=readr>

Table 1

Descriptive statistics of study variables

	<i>M</i>	<i>SD</i>	1	2	3
1 - Age	23.69	4.71			
2 - Motivation	-0.11	1.00	-.10		
3 - Pancake liking	0.00	0.92	.12	-.08	
4 - Zombieness	-0.06	0.63	-.23*	.42**	.49**

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

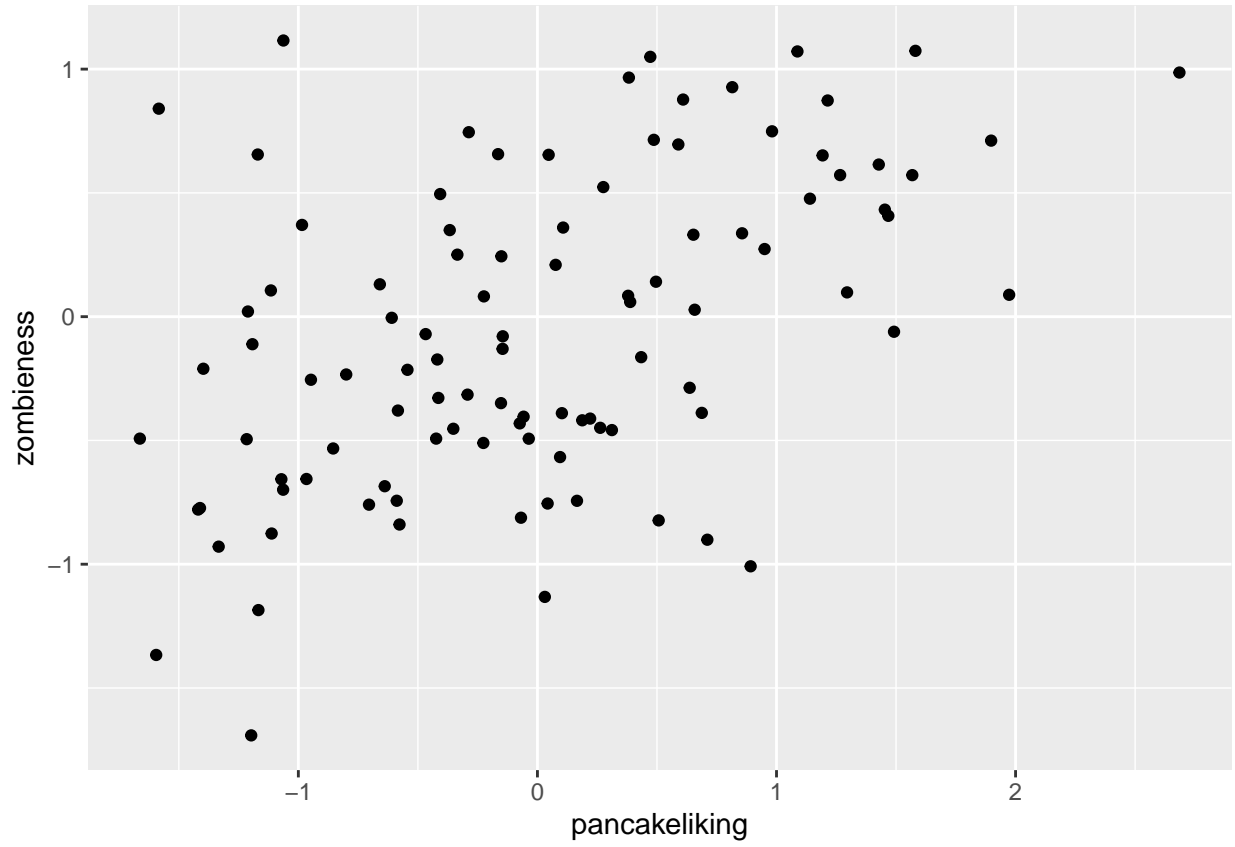


Figure 1. This plot says it all