The title

First Author[1] & Ernst-August Doelle[1,2]

[1] Wilhelm-Wundt-University

[2] Konstanz Business School

Author Note

Add complete departmental affiliations for each author here. Each new line herein must be indented, like this line.

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Correspondence concerning this article should be addressed to First Author, Postal address. E-mail: my@email.com

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: keywords

Word count: X

The title

This text is for the body of the introduction. This is how you **bold** text. This is *italics*. Lorem ipsum dolor sit amet, consectetur adipiscing elit. Integer fringilla orci odio, eget venenatis diam aliquet nec.[1] Vivamus sodales aliquam tortor ac scelerisque. Nullam laoreet est id dolor rhoncus bibendum. Etiam eleifend, tortor vel euismod ullamcorper, nunc enim lacinia eros, at semper nulla arcu eget est. Pellentesque dapibus euismod sem, sed sollicitudin nisi blandit ac. Quisque dapibus lorem id felis cursus, id placerat magna dapibus. Sed id nibh dictum, tristique nulla non, tempor ipsum.[2]

First level header

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Second level header

Quisque dapibus sem non fringilla volutpat. Sed finibus magna et eros pharetra posuere. Nunc id elit metus. Mauris quis malesuada massa. Fusce et auctor felis. Aenean id sem ex. Nulla viverra leo in quam cursus auctor. Nullam rutrum erat quis lobortis ullamcorper.

Third level header. Quisque dapibus sem non fringilla volutpat. Sed finibus magna et eros pharetra posuere. Nunc id elit metus. Mauris quis malesuada massa. Fusce et auctor felis. Aenean id sem ex. Nulla viverra leo in quam cursus auctor. Nullam rutrum erat quis lobortis ullamcorper.

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[1] This is a footnote.

[2] This is another footnote.

Citations

Citations are similar to Latex. Place bibliographic entries in a .bib file, then link to the .bib file in the YAML above. This example uses `example.bib`. Use a reference manager like Zotero to export bib files for collections of manuscripts, or write them by hand, or copy and paste from google scholar.

An example of citing a paper with author year in parenthese (Crump & Logan, 2010). Separate citation keys with semicolons to add multiple citations (Crump & Logan, 2010; Jamieson, Hannah, & Crump, 2010).

To cite the author alone with year in parentheses use Crump and Logan (2010). To cite year only, use (2010).

To add a prefix to the citation (see also, Crump & Logan, 2010). To add a postfix (see also, Crump & Logan, 2010, for a review)

Equations

Use Latex syntax for math equations by placing formulas between dollar signs.

$a^2 + b^2 = c^2$

You should see a preview of the equation in RStudio if you hover over the equation.

Include equations inside Latex style syntax for cross-referencing.

$$a_i = (\frac{\sum_{j=1}^{j=n} p_j \times M_{ij}}{\sqrt{\sum_{j=1}^{j=n} p_j^2} \sqrt{\sum_{j=1}^{j=n} M_{ij}^2}})^{tau} \quad (1)$$

Cross reference the equation like this, see Equation (1).

External images

Using `knitr::include_graphics()` is a versatile method for inserting external images. The file path is relative to the folder containing the .Rmd file for the manuscript. In this case, the `logo.png` file is in the same folder as `manuscript.Rmd`, so we simply locate the file directly.

In name for the codechunk above is `vertical`, which can later be used as a cross-reference to figure, see Figure 1.

Experiment 1

Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study.

Participants.

Material.

Procedure.

Data analysis. We used R (Version 3.6.0; R Core Team, 2019) and the R-packages *dplyr* (Version 0.8.3; Wickham et al., 2019), *ggplot2* (Version 3.2.0; Wickham, 2016), *kableExtra* (Version 1.1.0; Zhu, 2019), *papaja* (Version 0.1.0.9842; Aust & Barth, 2018), *tidyr* (Version 1.0.0; Wickham & Henry, 2019), and *verticaltutorial* (Version 0.0.0.9000; Crump, n.d.) for all our analyses.

Results

Content stored in R variables can be injected into the document. However, the R variables must be defined before they can be inserted. For example, the following code chunk assigns a values of 1 to a variable x.

Now, the content of this variable can be reported using an inline r code chunk as follows, the value of x is 1.

Below are examples of writing the results using two methods. The first method is to report all of the values by hand. The second method is to embed the results of R variables into the reporting using papaja. Both results sections appear similar in the .pdf, so look at the .rmd file for this example to see how to use papaja.

By hand reporting

Mean reaction times for each subject in each condition to a 2 (Congruency: congruent vs. incongruent) x 2 (Posture: Standing vs. Sitting) were submitted to a repeated measures ANOVA. Mean RTs in each condition are displayed in Table 1, and in Figure 2. The full ANOVA table is reported in Table 2.

There was a main effect of Congruency, F (1, 49) = 342.45, MSE = 1684.39, p < 0.001. Mean reaction times were slower for incongruent (922 ms) than congruent groups (815 ms).

There main effect of Posture was significant, F (1, 49) = 7.33, MSE = 4407.09, p =.009. Mean reaction times were slower for sitting (881 ms) than standing groups (855 ms).

The two-way interaction between Congruency and Posture was significant, F (1, 49) = 8.96, MSE = 731.82, p < 0.004. The Stroop effect was 23 ms smaller in the standing than sitting conditions.

papaja reporting

There was a main effect of Congruency, $F(1, 49) = 342.45$, $MSE = 1,684.39$, $p < .001$, $\hat{\eta}^2_G = .182$. Mean reaction times were slower for incongruent (922 ms) than congruent groups (815 ms).

There main effect of Posture was significant, $F(1, 49) = 7.33$, $MSE = 4,407.09$,

$p = .009$, $\hat{\eta}^2_G = .012$. Mean reaction times were slower for sitting (881 ms) than standing groups (855 ms).

The two-way interaction between Congruency and Posture was significant, $F(1, 49) = 8.96$, $MSE = 731.82$, $p = .004$, $\hat{\eta}^2_G = .003$. The Stroop effect was 23 ms smaller in the standing than sitting conditions.

Note, I used the `apa_print()` function to automate reporting of the ANOVA statistics, however in this example I did not automate reporting of the means. This would be possible by separately computing the means of interest, and then reporting them using inline r chunks.

Discussion

General Discussion

References

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Table 1

Mean Reaction Times and Standard Errors of the Mean for Experiment 3

	Congruent		Incongruent	
posture	RT	SEM	RT	SEM
Sit	822	17	941	18
Stand	808	15	904	15

Table 2

ANOVA table for Experiment 3

Effect	F	df_1	df_2	MSE	p	$\hat{\eta}^2_G$
Posture	7.33	1	49	4,407.09	.009	.012
Congruency	342.45	1	49	1,684.39	$< .001$	.182
Posture × Congruency	8.96	1	49	731.82	.004	.003

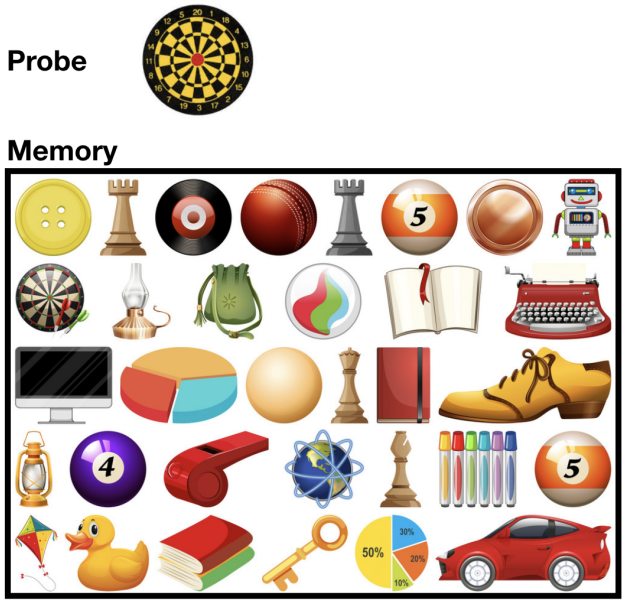

Figure 1. An example external image.

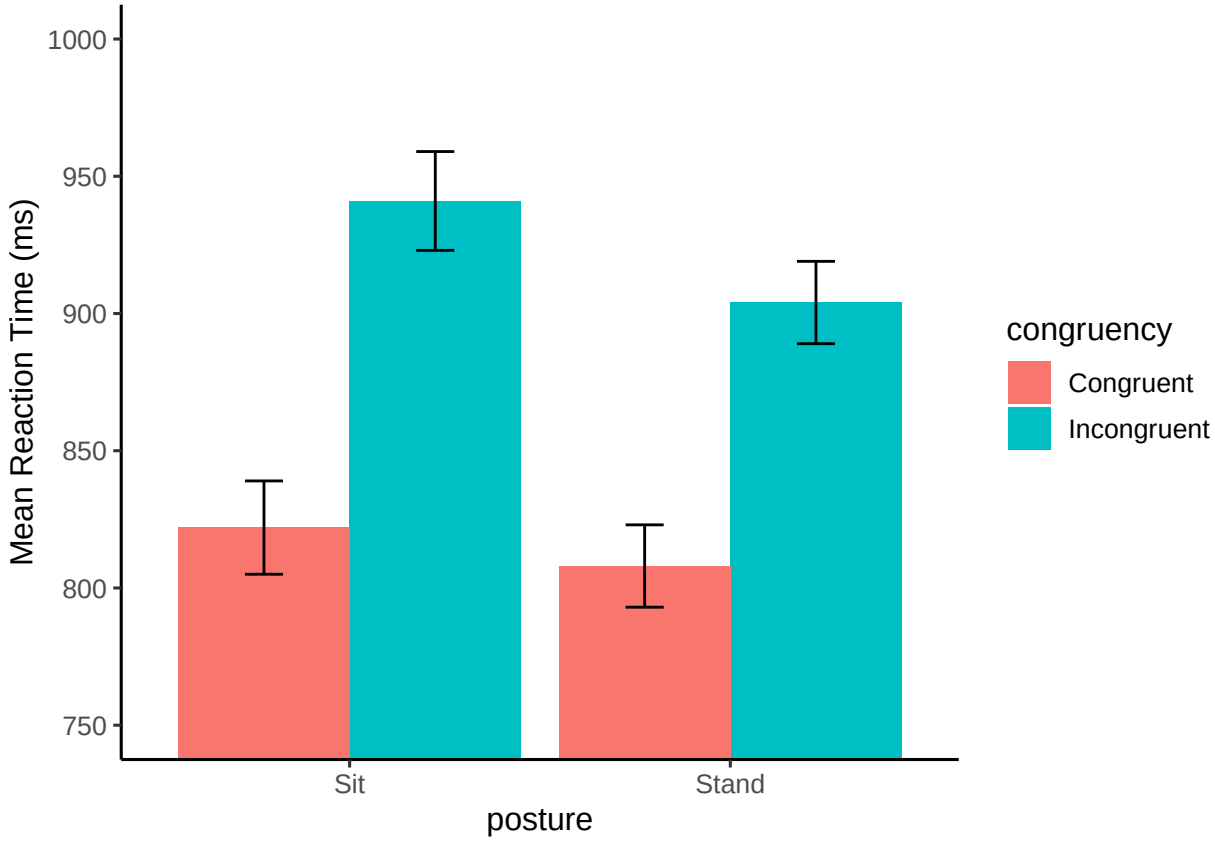

Figure 2. Mean reaction times wth standard error bars as a function of Posture and Congruency for Experiment 3