A tutorial on setting up a reproducible workflow in R and R Studio with Quarto

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This is where the abstract would go.

Keywords: these are the key words
Words: 367

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1. Introduction

2. Methods

We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the study (Simmons et al., 2012).

2.1. Participants

2.2. Material

2.3. Procedure

2.4. Data analysis

We used R version (R Core Team, 2025) for all our analyses.

3. Results

3.1. Descriptive statistics

Raw data plots.

Accuracy by condition violin plot (Figure 1).

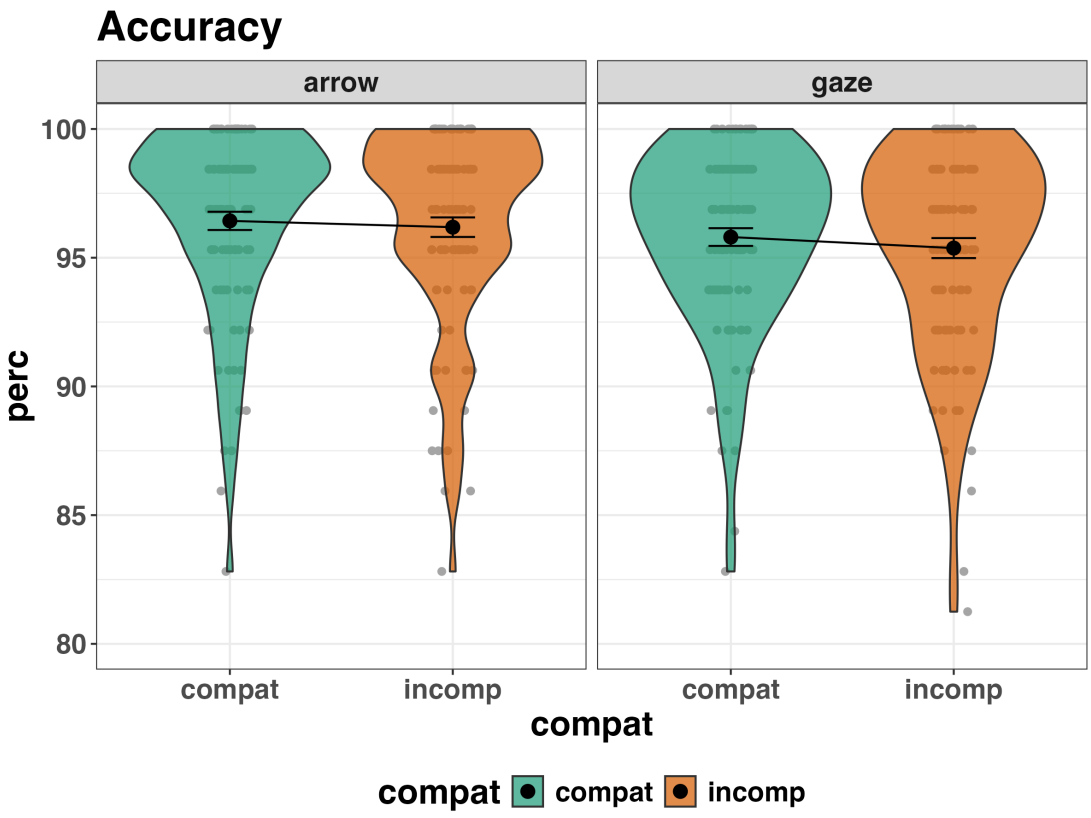

Figure 1: Accuracy is quite high for both types of stimuli.

Reaction time by condition violin plot (Figure 2).

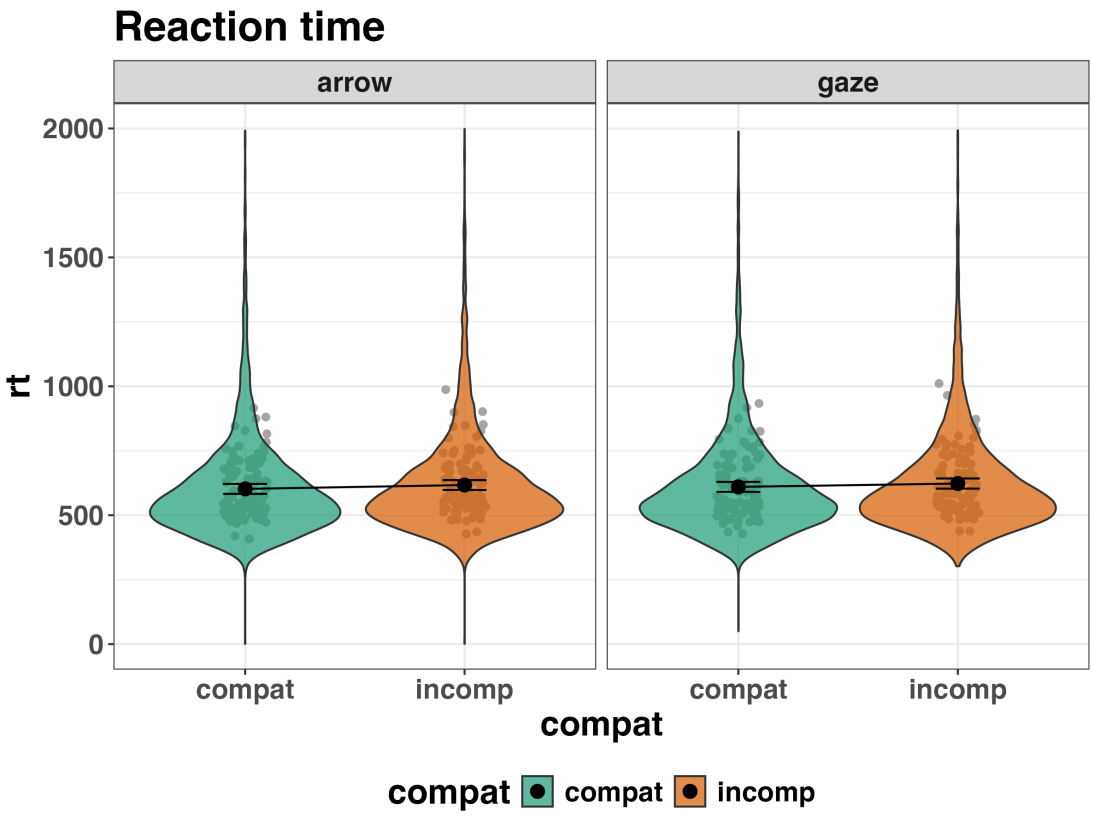

Figure 2: RT as a function of stimuli and conditions.

Reaction time by difference scores violin plot (Figure 3).

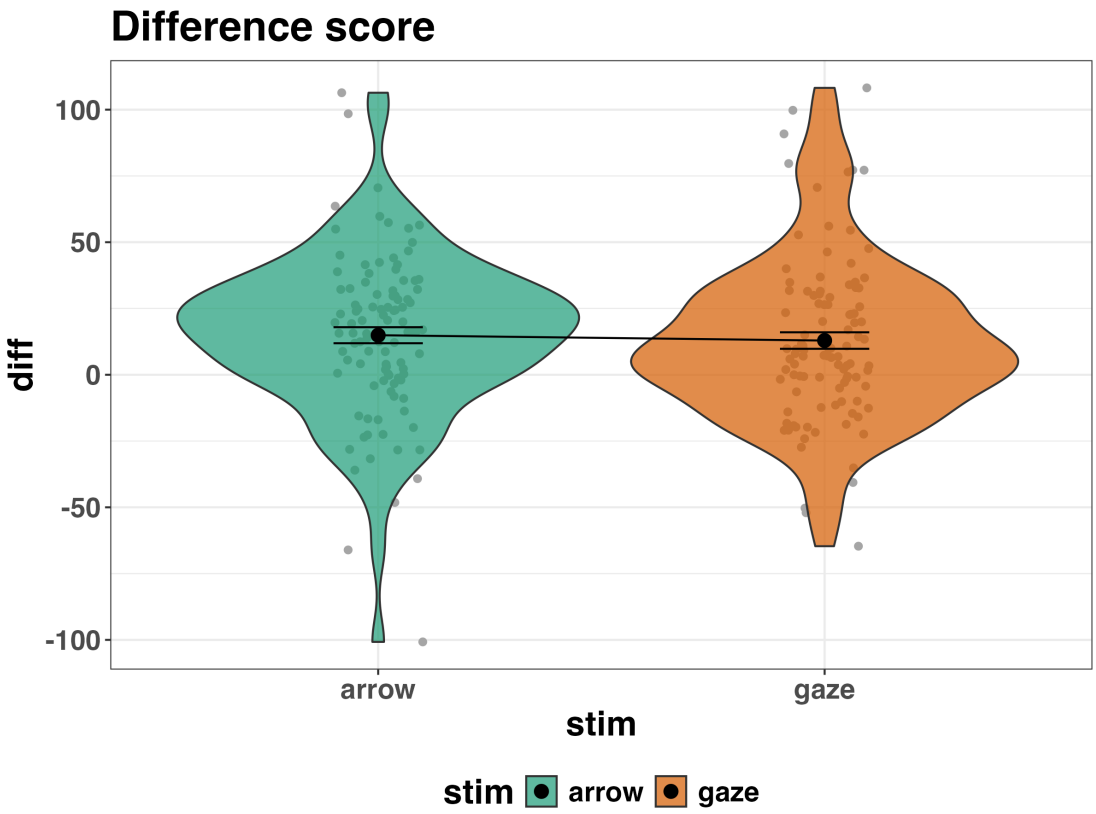

Figure 3: RT difference scores (incomp - compat) by stimulus type.

Reaction time by difference scores density plot with quantiles (Figure 4).

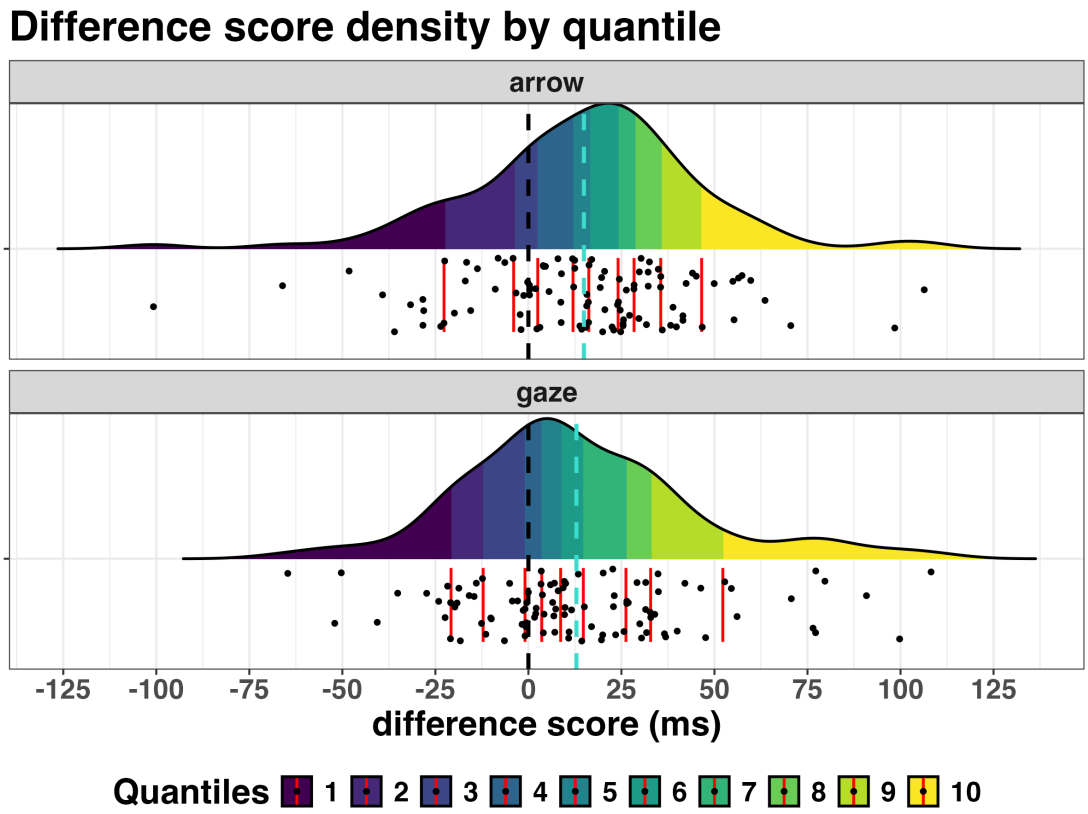

Figure 4: RT difference scores (incomp - compat) as a density plot.

3.2. Inferential statistics

Now we plot and tabulate parameters from the posterior distribution.

Fixed effects from model b2 (Figure 5).

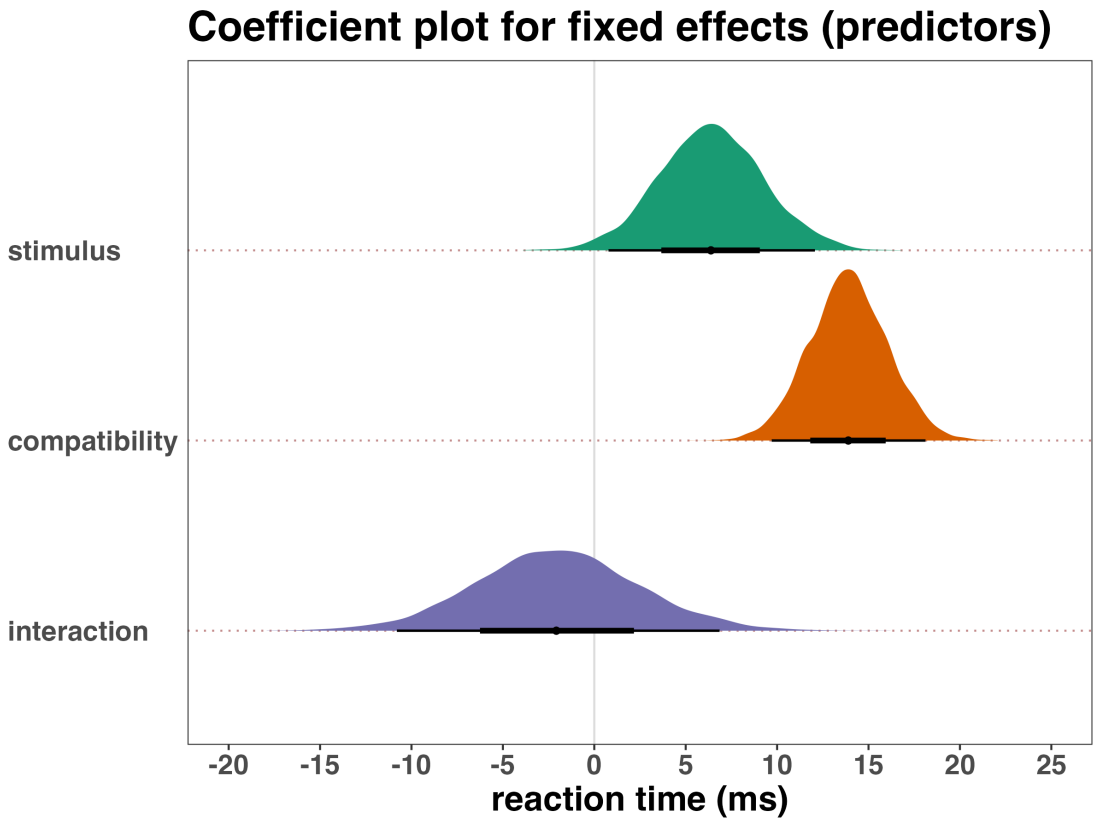

Figure 5: Fixed effects from model b2.

Here are a couple of example tables displaying fixed effects (Table 1, Table 2).

Table 1: Table created with `tinytable::tt()`

term	value	.lower	.upper
intercept	613.9	593.62	635
stimulus	6.4	0.77	12

Note. This is a footnote.

Table 2: Table created with `knitr::kable()`

term	value	.lower	.upper
intercept	613.94	593.62	634.79
stimulus	6.38	0.77	12.07

3.3. Referring to supplementary figures and tables

And here is how you might refer to supplementary figures and tables in a way that preserves the link between the figure or table label in each output format (e.g., .html figure /table numbers just keep going, whereas the appendix/supplementary pdf label them as Table A.1, Figure A.1 etc.).

There are at least two reasonably simple ways:

1) You can do it like this:

Here's the code:

```
::: {.content-visible when-format="html"}
See the supplementary analysis (@fig-s1 and @tbl-s1).
:::
::: {.content-visible when-format="typst"}
See the supplementary analysis (Figure A.1 and Table A.1 in the
supplementary materials).
:::
```

And here's the output:

See the supplementary analysis (Figure A.1 and Table A.1 in the supplementary materials).

2) Or use inline conditionals for shorter references:

Here's the code:

```
The model diagnostics [are shown in @fig-s1]{.content-visible when-
format="html"}[are shown in Figure A.1 of the supplementary materials]
{.content-visible when-format="typst"}.
```

And here's the output:

The model diagnostics are shown in Figure A.1 of the supplementary materials.

4. Discussion

5. Disclosures

5.1. Data and code availability

blah.

5.2. Author contributions

We follow the Credit system. https://credit.niso.org/

Blah.

5.3. Competing interests

Blah.

6. References

R Core Team. (2025). *R: A language and environment for statistical computing*. R Foundation for Statistical Computing. https://www.R-project.org/
Simmons, J. P., Nelson, L. D., & Simonsohn, U. (2012). *A 21 Word Solution* (SSRN Scholarly Paper 2160588). Social Science Research Network. https://doi.org/10.2139/ssrn.2160588