Prejudice Reduction: Progress and Challenges (Paluck, Porat, Clark and Green 2020)

This repository contains the code and data for reproducing the results in the accompanying paper.

To reproduce all results:

From the `/code` directory, execute either `0-main.R` or, if you prefer, `bash run.sh`.

Description of programs

Analysis scripts

`0-main.R` - Runs the entire pipeline from the top (R scripts 1-6, in order) and creates all output.

`1-clean-data.R` - Cleans and transforms `raw_data.csv` into `prejudice_meta_data.rds`.

`2-cohens-d.R` - Converts the unstandardized effects into Cohen's D, variance of D, and Standard Error of D, and appends estimates of each to the main dataset.

`3-sub-group.R` - Calculates all meta-analytic effect sizes that are presented in the paper and saves them as `csv` files within (subfolders of) `data/meta-analytic/*`.

`4-paper-stats.Rmd` - Provides code and data that produce each quantitative claim in the paper. It builds on `3-sub-group-R`, so if the `csv` files created by that script haven't yet been created, this script will not run.

`5-figures.Rmd` - The creates all the figures used in the paper and some additional exploratory visualizations.

`6-methods-check.Rmd` - This script simulates a dataset and uses it to check the paper's procedures for estimating Cohen's D.

Additional files in `code/`:

`run.sh` - A `bash` script that executes `0-main.R` (which runs all scripts in order).

`prejudice_reduction.Rproj` - An `R project` file used to navigate directories for reproduciblity across machines.

Functions and helper scripts in `functions/`:

`dplot.R` - A function for creating scatterplots of D by N_treatment (used in `5-figures.Rmd`).

`factor-levels.R` - Declares the names of the numeric variable categories so that they can be converted to factors.

`forest_functions.R` - Additional functions for the forest plots in `5-figures.Rmd`.

`main-meta-function.R` - Declares the function `meta_analyze`, which is used to calculate the meta-analytic effects in `3-sub-group.R`.

`make_bib.R` - Provides examples of how to use RefManageR to convert DOIs in a dataset into a complete bibliography.

`ResultsStandardizeR.R` - Declares the function `stand_result`, used primarily in the script `2-cohens-d.R` to convert unstandardized effect sizes into Cohen's D.

`write_dockerfile.R` - Converts the output from `sessioninfo::package_info()` into a Dockerfile for long-term reproducibility.

Description of data

`lai_data.rds` - A dataset of estimates from Lai et al. (2014, 2016) discussed in a robustness check in the appendix.

`meta-analytic/*` - intermediate datasets created by `code/3-sub-group.R`. This folder will be empty until you run that script.

`prejudice_meta_data.dta` - This is the `dta` equivalent of `prejudice_meta_data.rds` written for analysis in Stata 15.

`prejudice_meta_data.rds` - The maind dataset used in the meta-analysis. `1-clean-data.R` transforms `raw-data.csv` into this, and then `2-cohens-d.R`appends Cohen's D, variance of D, and standard error of D to each row. A data dictionary of the variables can be found in `documentation/`.

`raw-data.csv` - The raw data, before cleaning or the addition of Cohen's D columns.

`sim_data.rds` - The simulated data for use in `6-methods-check.Rmd`.

Output

`4-paper-stats.html, 5-figures.html, 6-methods-check.html` - Rendered HTML files, interspersing code, data and text, created from the R scripts with the corresponding titles in `code/`. All rendering commands are in `0-main.R`.

`figs/` - Contains figures saved from `5-figures.Rmd`.

`vtable.html` - provides a statistical overview of the variables in `prejudice_meta_data.rds`.

Documentation

`all-manuscripts-bibliography.bib`, `all-manuscripts-bibliography.pdf` - A `.bib` file (and compiled PDF) of the 309 manuscripts in the main meta-analysis.

`codebook.csv` - a codebook for all variables in `raw-data.csv`.

`Dockerfile` – A Dockerfile (for long-term reproducibility) produced by `code/functions/write_dockerfile.R`.