**READ-ME FILE for “Navigating a Social World with Robot Partners”**

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**Overview**

These materials are designed to guide a naïve user through independent replication of this study. In chronological order, this repository contains: (1) files that import directly into Qualtrics to recover the live questionnaire (including embedded logic and randomization structures) and all other experimental materials; (2) raw, unmodified data files; (3) a thoroughly commented R script to create analysis-ready datasets from raw data (with each modification and subject exclusion made programmatically, rather than manually); (4) the analysis-ready dataset; and (5) scripts that reproduce each statistical analysis and plot in the paper, structured with clear connection to sections of the manuscript.

**Usage Notes**

* Bold font below refers to **folders**. Italic font refers to *file names*.
* All R files that produce files (e.g. data files) will automatically apply a date stamp to the file name.
* Some folders contain a subfolder called “**Old versions**”, which represent previous versions of code, data, etc. These are saved for traceability purposes only and are not to be used for replication, as some of these files contain known bugs.
* Documentation for the meaning of variables and dataset names is within the corresponding data prep code.
* Upon reading in data, ensure that it has the expected dimension in case there were import problems on your platform (the beginning of each R script will do this for you).

**Detailed Contents (Chronologically)**

Folder “**All materials to replicate paper**”

**0.) Protocol**

* *IRB exemption letter*
* *Robot image search details:* A priori search strategy for Experiment 1

**1.) Materials**

* **Stimuli**
  + **Experiment 1**
    - *Face stimuli with Qualtrics ordering*: all stimuli for Experiment 1 as ordered (arbitrarily) when uploaded to Qualtrics. This is the numbering that Qualtrics exports in the raw data.
    - *Face stimuli with composite ordering*: stimuli as ordered empirically based on MH scores from Experiment 1 (as in Fig. 2 in the paper).
    - *Face numbers in survey as in data*: URLs exported from Qualtrics linking images as uploaded to Qualtrics with numbers that appear in data files. Provides same information as the Qualtrics ordering file images (used as cross-check).
    - **All screened faces**: Screenshots of all face images returned by the systematic Google search process (prior to application of inclusion/exclusion criteria), organized by search term.
  + **Experiment 2**: Full-resolution copies of the stimuli pictured in published graphs.
    - **Primary analysis stimuli (neutral eyebrows)**
    - **Secondary analysis stimuli (angled eyebrows):** For the secondary analysis of facial expression described in Appendix.
    - **Replication stimuli**
* **Qualtrics questionnaire**
  + Files that can be directly imported into Qualtrics to recover the live, editable questionnaires
  + *1A example of VAS appearance*: a screenshot from one of the questionnaires to provide an example of what the VAS instruments looked like
  + Additional files are questionnaire items in Word and Qualtrics format. The former is the version provided to our IRB.
* *Names of included robots.txt*
  + A list of model names of the included robot stimuli along with Qualtrics IDs.

**2.) Analysis materials**

Subfolder names correspond to the experiment names used in paper (“1A”, “2B”, etc.)

* **2.0) Raw data**
  + Raw data files exactly as collected. Files with suffixes such as “*no\_header*” and “*minimally\_cleaned*” had minimal manual modifications made in order to remove header rows with characters that R does not understand. When present, these modified files are always accompanied by a raw data file with no modifications at all.
* **2.1) Data prep code**
  + R scripts that take raw data from the above folder, rename and recode variables as needed, make documented subject exclusions as noted in the paper, perform sanity checks, and perform other manipulations to prepare and clean data for analysis.
* **2.2) Prepped data**
  + Analysis-ready, cleaned datasets as exported by the above R files.
  + “*Codebook*” explains the names and coding schemes for variables. For more details and relations between the raw variables and the prepped variables, see comments directly in the data prep code files.
* **2.3) Analysis code**
  + Running *“Recreate our package versions.R”* will load *“2017-02-19\_packages.csv”*, recreating the package environment that MM used to prepare and analyze the data. This is useful in case you are reproducing the analyses using much later versions of the packages. (Due to our oversight, this package snapshot was taken a year after MM analyzed the data and therefore doesn’t quite represent the exact environment used to analyze the data, but any discrepancies should be very minimal.)
  + R scripts that take the prepped data to conduct all analyses and create figures in paper.

**Contents for Replication Study Pre-Registration**

Folder “**Pre-Registration for Replication Experiment 2**”

* *2015-08-26 Preregistered replication protocol*: the full protocol for the replication study, including objective a priori rules for how the new stimulus set would be constructed and iteratively subjected to manipulation checks
* *2015-08-27* *Update documentation:* an update posted after testing the first candidate set of replication stimuli (which met manipulation check criteria)
* *2015-08-27\_manipulation\_check\_results.csv*: successful results of the manipulation check