On the Difficulty to Think in Ratios: A Methodological Bias in Stevens' Magnitude Estimation Procedure

Transparency Report 1.0 (full, 36 items)

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Link to Project Repository: https://github.com/mertensu/thinking-in-ratios

PREREGISTRATION SECTION

(1) Prior to analyzing the complete data set, a time-stamped preregistration was posted in an independent, third-party registry for the data analysis plan. **No**

Comments about your Preregistration

    No comments.

METHODS SECTION

The manuscript fully describes...

(14) the rationale for the sample size used (e.g., an a priori power analysis). **Yes**

(15) how participants were recruited. **Yes**

(16) how participants were selected (e.g., eligibility criteria). **NA**

(17) what compensation was offered for participation. **Yes**

(18) how participant dropout was handled (e.g., replaced, omitted, etc). **NA**

(19) how participants were assigned to conditions. **Yes**

(20) how stimulus materials were randomized. **Yes**

(21) whether (and, if so, how) participants, experimenters, and data-analysts were kept naive to potentially biasing information. **NA**

(22) the study design, procedures, and materials to allow independent replication. **Yes**

(23) the measures of interest (e.g., friendliness). **Yes**

(24) all operationalizations for the measures of interest (e.g., a questionnaire measuring friendliness). **Yes**

Comments about your Methods section

No comments.

RESULTS AND DISCUSSION SECTION

The manuscript...

(26) distinguishes explicitly between "confirmatory" (i.e., prespecified) and "exploratory" (i.e., not prespecified) analyses. **Yes**

(27) describes how violations of statistical assumptions were handled. **Yes**

(28) justifies all statistical choices (e.g., including or excluding covariates; applying or not applying transformations; use of multi-level models vs. ANOVA). **Yes**

(29) reports the sample size for each cell of the design. **Yes**

(30) reports how incomplete or missing data were handled. **Yes**

(31) presents protocols for data preprocessing (e.g., cleaning, discarding of cases and items, normalizing, smoothing, artifact correction). **Yes**

Comments about your Results and Discussion

No comments.

DATA, CODE, AND MATERIALS AVAILABILITY SECTION

The following have been made publicly available...

(32) the (processed) data, on which the analyses of the manuscript were based. **Yes**

(33) all code and software (that is not copyright protected). **Yes**

(34) all instructions, stimuli, and test materials (that are not copyright protected). **No**

(35) Are the data properly archived (i.e., would a graduate student with relevant background knowledge be able to identify each variable and reproduce the analysis)? **Yes**

(36) The manuscript includes a statement concerning the availability and location of all research items, including data, materials, and code relevant to the study. **Yes**

Comments about your Data, Code, and Materials

All instructions are reported in the manuscript (translated from German). The colorimetric values of the stimuli are also reported in the manuscript.

References

Aczel, B., Szaszi, B., Sarafoglou, A. Kekecs, Z., Kucharský, Š., Benjamin, D., . . . & Wagenmakers, E.-J. (2019). A consensus-based transparency checklist. *Nature Human Behavior*, 1–3. doi:10.1038/s41562-019-0772-6