

Reporting Summary

Nature Research wishes to improve the reproducibility of the work that we publish. This form provides structure for consistency and transparency in reporting. For further information on Nature Research policies, see our [Editorial Policies](#) and the [Editorial Policy Checklist](#).

Statistics

For all statistical analyses, confirm that the following items are present in the figure legend, table legend, main text, or Methods section.

n/a Confirmed

- | | | |
|-------------------------------------|-------------------------------------|--|
| ☐ | ☒ | The exact sample size (n) for each experimental group/condition, given as a discrete number and unit of measurement |
| ☐ | ☒ | A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly |
| ☐ | ☒ | The statistical test(s) used AND whether they are one- or two-sided
<i>Only common tests should be described solely by name; describe more complex techniques in the Methods section.</i> |
| ☒ | ☐ | A description of all covariates tested |
| ☐ | ☒ | A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons |
| ☐ | ☒ | A full description of the statistical parameters including central tendency (e.g. means) or other basic estimates (e.g. regression coefficient) AND variation (e.g. standard deviation) or associated estimates of uncertainty (e.g. confidence intervals) |
| ☐ | ☒ | For null hypothesis testing, the test statistic (e.g. F , t , r) with confidence intervals, effect sizes, degrees of freedom and P value noted
<i>Give P values as exact values whenever suitable.</i> |
| ☒ | ☐ | For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings |
| ☒ | ☐ | For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes |
| ☐ | ☒ | Estimates of effect sizes (e.g. Cohen's d , Pearson's r), indicating how they were calculated |

Our web collection on [statistics for biologists](#) contains articles on many of the points above.

Software and code

Policy information about [availability of computer code](#)

Data collection Qualtrics survey software

Data analysis R v. 4.0.2 (including the effsize and psych packages), SPSS v. 27, and jamovi v. 1.2.
R code is available at: <https://osf.io/7v6r2/>

For manuscripts utilizing custom algorithms or software that are central to the research but not yet described in published literature, software must be made available to editors and reviewers. We strongly encourage code deposition in a community repository (e.g. GitHub). See the Nature Research [guidelines for submitting code & software](#) for further information.

Data

Policy information about [availability of data](#)

All manuscripts must include a [data availability statement](#). This statement should provide the following information, where applicable:

- Accession codes, unique identifiers, or web links for publicly available datasets
- A list of figures that have associated raw data
- A description of any restrictions on data availability

Data and materials are available at: <https://osf.io/7v6r2/>

The coded responses from Study S2 are posted per our agreement with the organization that supplied the data. Open-ended responses are available from the authors upon reasonable request and with permission of the organization.

Field-specific reporting

Please select the one below that is the best fit for your research. If you are not sure, read the appropriate sections before making your selection.

☐ Life sciences

☒ Behavioural & social sciences

☐ Ecological, evolutionary & environmental sciences

For a reference copy of the document with all sections, see [nature.com/documents/nr-reporting-summary-flat.pdf](https://www.nature.com/documents/nr-reporting-summary-flat.pdf)

Behavioural & social sciences study design

All studies must disclose on these points even when the disclosure is negative.

Study description	All data are quantitative. As described in the Methods document, Experiments 1-8 use experimental designs. As described in the Supplementary Information, Studies S1 through S10 are observational studies; S11 is an experiment; Study S12 is a quasi-experiment.
Research sample	We recruited participants from a variety of convenience samples (MTurk, University student pools, passersby). Samples were not intended to be representative of any population. Experiment 1: passersby; no demographic data collected Experiment 2: MTurk; 63 women, 83 men, 1 unspecified; Mean age = 34.70, SD = 10.10 Experiment 3: MTurk; 74 women, 90 men, 1 unspecified; Mean age = 35.70, SD = 9.44 Experiment 4: MTurk; 183 women, 181 men, 5 unspecified; Mean age = 37.00, SD = 11.73 Experiment 5: MTurk; 126 women, 170 men, 3 unspecified; Mean age = 34.99, SD = 9.27 Experiment 6: MTurk; 128 women, 170 men, 1 unspecified; Mean age = 35.03, SD = 9.68 Experiment 7: U.S.-based university participant pool; 197 women, 88 men, 1 unspecified; Mean age = 18.82, SD = 1.61 Experiment 8: U.S.-based university participant pool; 367 women, 200 men, 1 unspecified; Mean age = 18.84, SD = 1.67 Study S1: MTurk; 58 women, 39 men; Mean age = 34.19, SD = 9.59 Study S2: archival (original responses are from stakeholders at a U.S.-based university) Study S3-S5: passersby; no demographic data collected Study S6: U.S.-based university participant pool; 129 women, 68 men; 1 unspecified; Mean age = 21.8, SD = 6.72 Study S7: U.S.-based university participant pool; 140 women, 58 men; 2 unspecified; Mean age = 21.40, SD = 6.04 Study S8: MTurk; 59 women, 85 men; Mean age = 37.09, SD = 12.81 Study S9 Pretest: MTurk; 28 women, 51 men, 1 unspecified; Mean age = 34.71, SD = 10.92 Study S9: MTurk; 126 women, 156 men, 2 unspecified; Mean age = 35.62, SD = 10.79 Study S10: MTurk; 108 women, 134 men; Mean age = 36.28, SD = 11.59 Study S11: U.S.-based university participant pool; 160 women, 49 men, 1 non-binary; Mean age = 18.69, SD = 1.23 Study S12: students in Japan = 48, students in Germany = 75, students in the U.S. = 99; 64 men, 159 women, 2 unspecified; Mean age = 22.61, SD = 7.43.
Sampling strategy	Sample sizes for each study were determined before data collection (i.e., no additional data were collected in any study after analysis began). For studies that were the first of their design, we used informal rules of thumb to determine a target sample size. For subsequent studies that used a similar design, we used observed effect sizes as an informal guide. The exceptions to this approach were Experiment 1 (pre-registered based on a power calculation, see https://osf.io/rkqvwl/), Study S2 (an archival study) and S12 (we were limited by the number of volunteers). Except for Experiment 1, no power analyses were performed.
Data collection	Research assistants recruiting passersby and recording data; blind to hypothesis (Experiment 1; Studies S3-S5) Qualtrics survey administered virtually through MTurk; researchers blind to condition (Experiments 2-6; Studies S1, S8-S10) Qualtrics survey administered in person to members of university-based participant pools; researcher assistants blind to condition, hypothesis (Experiment 7) Qualtrics survey administered online to members of university-based participant pools; researchers blind to condition (Experiment 8; Studies S6-S7, S11-12) Archival data (no data collected by researchers): S2
Timing	Studies were conducted between 2017 and 2020.
Data exclusions	We established before data analysis that we would exclude those who participated in the study more than once (as determined by duplicate IP addresses), participants who failed an attention check, or those for whom study procedures were violated during participation. These criteria were applied only when relevant to the sample (e.g., duplicate IP addresses only for online studies), and are consistent across similar methods and samples (e.g., all MTurk samples had the same exclusion criteria). The number of people excluded under each criterion is reported in the methods section of each study and is also listed here (if an experiment or study does not appear under a criterion, no exclusions were made): Duplicated responses: Experiment 2 (n = 5); Experiment 3 (n = 4); Experiment 4 (n = 3); Experiment 5 (n = 2); Experiment 7 (n = 16); Experiment 8 (n = 3); Study S1 (n = 6); Study S8 (n = 2); Study S9 Pretest (n = 5); Study S9 (n = 14); Study S10 (n = 21), Study S12 (n = 1) Failed attention check: Experiment 3 (n = 13), Experiment 4 (n = 27); Study S8 (n = 42), Study S9 Pretest (n = 13); Study S9 (n = 1), Study S10 (n = 5) Violation of study procedure: Experiment 1 (n = 6), S11 (n = 1)
Non-participation	Participants were determined not to have participated if they did not provide consent or if they withdrew during the task and provided no valid responses. These data were only collected for online studies (i.e., not for in-person studies). The number of people

excluded for non-participation is reported in the methods section of each study and is also listed here (if an experiment or study does not appear under a criterion, no exclusions were made):

Did not provide consent: Experiment 2 (n = 96), Experiment 3 (n = 27), Experiment 4 (n = 80), Study S12 (n = 4)

Withdrew during task/no valid responses: Experiment 2 (n = 14), Experiment 3 (n = 127), Experiment 4 (n = 179), Experiment 5 (n = 12), Experiment 6 (we did not keep a record), Experiment 7 (n = 16), Experiment 8 (n = 11), Study S1 (n = 7), Study S6 (n = 70), Study S7 (n = 49), Study S8 (n = 23), Study S9 Pretest (n = 10), Study S9 (n = 36), Study S10 (n = 50), Study S11 (n = 5), Study S12 (n = 9)

Randomization

In Experiment 1, we used a randomizer to make a pre-determined randomization schedule. In Experiments 2—8 and Studies S9—S11, we used the randomization feature present in Qualtrics's survey software.

In Studies S1—S8, there were no experimental conditions.

In Study S12, participants were analyzed in groups based on their geographic location.

Reporting for specific materials, systems and methods

We require information from authors about some types of materials, experimental systems and methods used in many studies. Here, indicate whether each material, system or method listed is relevant to your study. If you are not sure if a list item applies to your research, read the appropriate section before selecting a response.

Materials & experimental systems

n/a	Involved in the study
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology and archaeology
☒	☐ Animals and other organisms
☐	☒ Human research participants
☒	☐ Clinical data
☒	☐ Dual use research of concern

Methods

n/a	Involved in the study
☒	☐ ChIP-seq
☒	☐ Flow cytometry
☒	☐ MRI-based neuroimaging

Human research participants

Policy information about [studies involving human research participants](#)

Population characteristics

See above.

Recruitment

For studies with passersby, we advertised the study on a whiteboard and offered candy. (For Experiment 1, passersby also received a bonus for successful completion, \$1 minus 10 cents per added brick.) MTurk workers were recruited on the platform and were paid between \$0.50 and \$1.00 depending on the estimated length of each study. Participants in Experiments 7-8 and Studies S6-S7 and S11 were recruited from a participant pool and received course credit. For S11, participants also received up to a \$1 bonus. Study S12 participants were university students in Japan and Germany who were emailed information about the study by their instructor and were paid in Amazon gift cards. Due to informed consent procedures and the use of brief advertisements, people may have chosen to participate based on their knowledge of or interest in the topic. Because participants were randomly assigned to condition, it is highly unlikely self-selection would give rise to the effects described in this research.

Ethics oversight

Research protocols were approved by the University of Virginia's Institutional Review Board for the Social and Behavioral Sciences. Human subjects consented to participate in all studies. No deception was used.

Note that full information on the approval of the study protocol must also be provided in the manuscript.