

## Reporting Summary

Nature Portfolio 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 Portfolio 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
<input type="checkbox"/>	<input checked="" type="checkbox"/> The exact sample size ( <i>n</i> ) for each experimental group/condition, given as a discrete number and unit of measurement
<input type="checkbox"/>	<input checked="" type="checkbox"/> A statement on whether measurements were taken from distinct samples or whether the same sample was measured repeatedly
<input type="checkbox"/>	<input checked="" type="checkbox"/> 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>
<input type="checkbox"/>	<input checked="" type="checkbox"/> A description of all covariates tested
<input type="checkbox"/>	<input checked="" type="checkbox"/> A description of any assumptions or corrections, such as tests of normality and adjustment for multiple comparisons
<input type="checkbox"/>	<input checked="" type="checkbox"/> 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)
<input type="checkbox"/>	<input checked="" type="checkbox"/> For null hypothesis testing, the test statistic (e.g. <i>F</i> , <i>t</i> , <i>r</i> ) with confidence intervals, effect sizes, degrees of freedom and <i>P</i> value noted <i>Give <i>P</i> values as exact values whenever suitable.</i>
<input checked="" type="checkbox"/>	<input type="checkbox"/> For Bayesian analysis, information on the choice of priors and Markov chain Monte Carlo settings
<input type="checkbox"/>	<input checked="" type="checkbox"/> For hierarchical and complex designs, identification of the appropriate level for tests and full reporting of outcomes
<input type="checkbox"/>	<input checked="" type="checkbox"/> Estimates of effect sizes (e.g. Cohen's <i>d</i> , Pearson's <i>r</i> ), 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	All data for all the studies was collected via Gorilla.sc, an online experiment building platform (Anwyl-Irvine et al., 2020).
Data analysis	All the analyses for all studies were conducted using R (version 4.4.1 (2024-06-14 ucrt) in RStudio (2025.05.1+513). All the analyses codes are available online via the project OSF: <a href="https://osf.io/47kmq/?view_only=b3ec3d3ebed54348959127af0b7360c5">https://osf.io/47kmq/?view_only=b3ec3d3ebed54348959127af0b7360c5</a>

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 Portfolio [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 description of any restrictions on data availability
  - For clinical datasets or third party data, please ensure that the statement adheres to our [policy](#)

All the data for all the studies is available online via the project's OSF, in both raw and processed (ready for analysis) forms: [https://osf.io/47kmq/?view\\_only=b3ec3d3ebed54348959127af0b7360c5](https://osf.io/47kmq/?view_only=b3ec3d3ebed54348959127af0b7360c5)

## Research involving human participants, their data, or biological material

Policy information about studies with [human participants or human data](#). See also policy information about [sex, gender \(identity/presentation\), and sexual orientation](#) and [race, ethnicity and racism](#).

### Reporting on sex and gender

Our hypotheses do not include any sex or gender effects, therefore the manuscript does not include any sex or gender reporting aside from gender distribution in each sample as self-reported by participants during the study. Additionally, as the study was conducted in Hebrew, a gendered language in which adjectives such as traits have different suffixes for men and women; the questions in the study were duplicated and each participant read the questions as addressing him or her according to their self-identification.

### Reporting on race, ethnicity, or other socially relevant groupings

As we did not hypothesize that the effects we are studying will be affected by race, we did not collect race related data nor report it. For each study, we state in the manuscript the participants' self-identification (more appropriate than race- and ethnicity-based categorizations in Israel), which in our sample is a vast majority of Israeli Jews.

### Population characteristics

Across all studies we collected data from both psychology undergraduate students participating for course credit and from students from all the university departments participating for monetary compensation. All of the participants were native Hebrew speakers, over 18 years of age, with normal or corrected-to-normal vision without attention deficits, ascertained by self-report. For two of the studies we also excluded color-blind participants as we used different colors as cues.

### Recruitment

Across all studies we collected data from both psychology undergraduate students participating for course credit and from students from all the university departments participating for monetary compensation. The studies varied between studies conducted online (i.e., participants did the experiment from their own personal computer wherever they were) and studies conducted in the lab (participants arrived at the lab and did the experiment via gorilla from the same computers and an internet connection). All of our participants are students, which could bias our results. However, different studies were conducted in different times under different circumstances (COVID-19 or war) which we do consider as diversification of the population characteristics.

### Ethics oversight

All studies were approved by the Departmental Ethics Review Board

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

## 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

In the manuscript we report three studies (and two additional replication studies in the supplementary materials to a total of five studies). All studies are within subject designs with several conditions (varying across studies) collecting quantitative data.

### Research sample

Across studies our sample consists of university students from all the university departments regardless of their degree or year in school. Participants' age ranged between 19-27 (fully reported per study in the manuscript), and all studies consisted of more women than men (ranging between 69% to 90%, reported per study in the manuscript). Our sample is representative of the student population, but not of the general population, this limitation and its possible implications are addressed in the general discussion in the manuscript.

### Sampling strategy

All the sampling was random using the university SONA System and online advertisement in general student social-networks (the main student group on facebook). For two of the studies reported in the manuscript (and one replication in the SM), we calculated the sample size to enable a statistical power of 80% to detect our main hypothesized effect. The effect size was determined by combining an effect size from a pilot study (reported in the SM) and the effect size reported in a major meta-analysis in the field (Kwang & Swann, 2010). For the third reported study (and one replication), in which we used a novel method in our lab, we determined the sample size according to the sample size in similar studies using the same method.

### Data collection

Data collection was done using a computer via gorilla.sc (an online experiment building platform), either on the participants' personal computer or on a computer in the lab (varying between studies).

### Timing

Data for Study 1 was collected between November 28, 2021 and January 20, 2022  
Data for Study 2 was collected between December 26, 2021 and June 19, 2022  
Data for Study 3 was collected between April 19, 2023 and May 18, 2023

Data for Study 4 (replication for Study 1 during war) was collected between January 7, 2024 and March 5, 2024  
Data for Study 5 (replication for Study 3 during war) was collected between January 22, 2024 and February 22, 2024

## Data exclusions

The full pre-registered exclusion criteria per study is elaborated in the SM of each study.

Study 1- 2 participants were excluded because they did not understand the instructions as evident by their performance.

Study 2- 5 participants were excluded because they understood the purpose of the study as evident by interview at the end of the study.

Study 3- The first 10 participants were used for sanity checks and were never intended to be included in the analysis. Of the rest of the participants, one participant arrived at the study with a service dog which was beside her during the whole study, which could cause distractions, and therefore was excluded from analysis (not pre-registered).  
study.

## Non-participation

The full pre-registered exclusion criteria per study is elaborated in the SM of each study.

Study 1- 14 participants were unsuitable for session 2, 9 failed comprehension checks, 6 failed attention checks, 2 did not return to session 2.

Study 2- 7 participants were unsuitable for session 2, 8 failed comprehension checks, 3 failed attention checks, 3 did not return to session 2.

Study 3 - 7 participants failed attention checks

## Randomization

All of the reported studies are within-subject designs, therefore all of the participants saw all of the conditions.

The specific traits that were allocated to each condition were randomly allocated (with specific limitations on traits according to each participant's self-ratings: for instance we could not provide a higher than self-rating score on "shyness" to a participants who rated themselves as 100/100 shy).

In studies 1 and 2 the scale direction of the main dependent variable was randomly counterbalanced between participants.

In study 3 the placement (sides) of each choice was randomly counterbalanced between participants and so were the monetary cue colors.

## 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
<input checked="" type="checkbox"/>	<input type="checkbox"/> Antibodies
<input checked="" type="checkbox"/>	<input type="checkbox"/> Eukaryotic cell lines
<input checked="" type="checkbox"/>	<input type="checkbox"/> Palaeontology and archaeology
<input checked="" type="checkbox"/>	<input type="checkbox"/> Animals and other organisms
<input checked="" type="checkbox"/>	<input type="checkbox"/> Clinical data
<input checked="" type="checkbox"/>	<input type="checkbox"/> Dual use research of concern
<input checked="" type="checkbox"/>	<input type="checkbox"/> Plants

### Methods

n/a	Involved in the study
<input checked="" type="checkbox"/>	<input type="checkbox"/> ChIP-seq
<input checked="" type="checkbox"/>	<input type="checkbox"/> Flow cytometry
<input checked="" type="checkbox"/>	<input type="checkbox"/> MRI-based neuroimaging

## Plants

## Seed stocks

Report on the source of all seed stocks or other plant material used. If applicable, state the seed stock centre and catalogue number. If plant specimens were collected from the field, describe the collection location, date and sampling procedures.

## Novel plant genotypes

Describe the methods by which all novel plant genotypes were produced. This includes those generated by transgenic approaches, gene editing, chemical/radiation-based mutagenesis and hybridization. For transgenic lines, describe the transformation method, the number of independent lines analyzed and the generation upon which experiments were performed. For gene-edited lines, describe the editor used, the endogenous sequence targeted for editing, the targeting guide RNA sequence (if applicable) and how the editor was applied.

## Authentication

Describe any authentication procedures for each seed stock used or novel genotype generated. Describe any experiments used to assess the effect of a mutation and, where applicable, how potential secondary effects (e.g. second site T-DNA insertions, mosaicism, off-target gene editing) were examined.