

Reporting Summary

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Statistical parameters

When statistical analyses are reported, confirm that the following items are present in the relevant location (e.g. 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
- ☐ ☒ An indication of 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
Only common tests should be described solely by name; describe more complex techniques in the Methods section.
- ☐ ☒ 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 statistics 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
Give P values as exact values whenever suitable.
- ☒ ☐ 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
- ☐ ☒ Clearly defined error bars
State explicitly what error bars represent (e.g. SD, SE, CI)

Our web collection on [statistics for biologists](#) may be useful.

Software and code

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

Data collection

Data was collected through the Moral Machine website (www.moralmachine.mit.edu) which was built especially for the purpose of this study. Some data at the level of countries was collected from other work (all cited).

Data analysis

Data was preprocessed and analyzed using Python (Jupyter 3.0), R (RStudio 3.4.1), and SPSS.

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/reviewers upon request. 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

Source data and code that can be used to reproduce Figs. 2-4; Extended Data Figs. 1-9; Supplementary Figures S3-S21; and Supplementary Table S2 are all available

at the following link: <https://goo.gl/JXRrBP>. The provided data, both at the individual level (anonymized IDs) and the country level, can be used beyond replication to answer follow up research questions.

Field-specific reporting

Please select 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/authors/policies/ReportingSummary-flat.pdf](https://www.nature.com/authors/policies/ReportingSummary-flat.pdf)

Behavioural & social sciences study design

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

Study description	This study uses quantitative data collected from an online website designed as a randomized controlled multi-factorial design experiment.
Research sample	Research sample is Internet users who chose to visit the website and contribute to the data. Research sample has 2.3M users. The demographic information is only available for 586K users (aged between 15-75; 27% are females and 2% are "others"). Detailed info and figures about demographics of users are included in the SI document.
Sampling strategy	The sample is self-selected. There was no power calculation. Sample size is 2.3M participants. For the country-level data, as a rule of thumb, a country is included in the analysis if we have at least 100 participants from it (sample size range: [101 - 448,125]).
Data collection	Data was collected via the website http://moralmachine.mit.edu . Allocations of users to conditions was done automatically by the website, and so all researchers were blind to the experimental conditions. Data was stored in a MongoDB data base on a remote server.
Timing	Website was deployed on June 23rd, 2016. The data used in the analysis was collected continuously up until Dec 20th, 2017
Data exclusions	The main analysis excluded responses for which the participant took more than 30 min. This resulted in the exclusion of 33,838 responses (out of 39.6M). This criteria was established after collecting the data. The time was chosen arbitrarily but choosing more or less time has inconsequential effect on the results. Additionally, robustness checks were performed in which we show that neither the exclusion of unfinished sessions (sessions in which strictly less than 13 tasks were answered), nor the exclusion of responses after the end of the first session by the same respondent have any consequential effect on results. Analysis that relates to age of participants excluded responses for which the indicated age falls outside the range (15-75).
Non-participation	Out of 2.86M completed sessions (13 scenarios), 43,979 sessions were opted out for. The number of participants dropping out (out of 2.3M) is hard to exactly know, but is comparable to the number of dropped out sessions. We did not collect the reasons to drop out.
Randomization	Users who visit the website get presented with 13 scenarios that are drawn from six main different conditions (2 scenarios from each condition + 1 fully random scenario). The six conditions vary the following aspect of characters: age, gender, fitness level, social status, number, and whether they are humans or pets. In conjunction with these six conditions, three main conditions were randomized: interventionism, relation to AV, and legality. Within each main condition, characters are sampled from a set of 20 characters (e.g. adult male, female athlete, homeless person, etc.).

Reporting for specific materials, systems and methods

Materials & experimental systems

n/a	Involved in the study
☒	☐ Unique biological materials
☒	☐ Antibodies
☒	☐ Eukaryotic cell lines
☒	☐ Palaeontology
☒	☐ Animals and other organisms
☐	☒ Human research participants

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

Research sample is Internet users who chose to visit the website and contribute to the data. Thus, the sample is self-selected, and it is representative of a subset of the full population.