The Effect of Fictional Reappraisal on Subjective Ratings Toward Images

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Keywords: keyword1, keyword2, keyword3

Study 1

Methods

Participants

The initial sample comprised 1,067 participants recruited via multiple channels, including Prolific©, Sona (ref), social media platforms, university classrooms, and snowball sampling. This strategy yielded a heterogeneous pool of both incentivised and non-incentivised individuals, including students and members of the general population from England, France, Italy, Colombia, and Spain.

To ensure data quality, several exclusion criteria were applied. Participants were removed if they (a) showed no variation in arousal ratings across trials (N = 8), (b) displayed a negative correlation between arousal and enticement alongside lower arousal ratings for erotic compared to neutral stimuli, suggesting a possible misunderstanding of scale direction (N = 4), or (c) self-identified with a gender or sexual orientation incompatible with the aims of the analysis (N = 350). For the latter, only self-reported heterosexual individuals were retained.

The final sample consisted of 705 participants (Mean = 30.2 years ± 11.8, 35.7% Female). Participants were primarily from the United Kingdom (28.23%), Italy (18.72%), the United States (14.33%), and Colombia (11.06%), with the remaining 27.66% distributed across other countries.

Ethical approval for this study was obtained from the School of Psychology Ethics Committee at the University of Sussex (ER/MHHE20/1).

Materials

All written materials in this study were translated into the participants native tongue languages: English, Italian, French, Spanish.

Questionnaires. The Beliefs about Artificial Image Technology (BAIT) assesses general attitudes toward artificial intelligence (AI) and beliefs about AI-generated media. It includes six items adapted from the General Attitudes towards Artificial Intelligence Scale (GAAIS, Schepman & Rodway, 2020, 2023) comprising three positively valenced (e.g., "Artificial Intelligence is exciting") and three negatively valenced items (e.g., "Artificial Intelligence might take control of people"). In addition, several items were developed to evaluate beliefs about computer-generated imagery, such as "Current Artificial Intelligence algorithms can generate very realistic images" and "Images of faces or people generated by Artificial Intelligence always contain errors and artifacts." All items were rated on a continuous scale from strongly disagree (0) to strongly agree (1). One item was included to assess self-reported AI knowledge, with anchors ranging from Not at all (0) to Expert (6).

Consumption of Pornography Scale – General [COPS; Hatch et al. (2023)] is a 34-item measure of pornography use across four dimensions: frequency, duration, accidental exposure, and deliberate exposure. In the current study, a subset of items from the frequency and duration subscales was used.

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Author roles were classified using the Contributor Role Taxonomy (CRediT; https://credit.niso.org/) as follows: Dominique Makowski: Project administration, Data curation, Formal Analysis, Investigation, Visualization, Writing – original draft, Writing – review & editing; Ana Neves: Data curation, Formal Analysis, Investigation, Visualization, Writing – original draft, Writing – review & editing

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Participants reported how often they had viewed pornography in the past 30 days (e.g., not at all, once or twice, weekly, daily, multiple times per day), and the typical duration of viewing sessions (less than 5 minutes to 46+ minutes). An additional item assessed the recency of any sexual activity, with response options ranging from within the past 24 hours to more than a year ago.

Affective Measures. Arousal. Subjective sexual arousal was assessed following each image with the question, "How much did you feel sexually aroused?" Responses were recorded on a continuous scale from Not at all (0) to Very much (1).

Enticement. Perceived enticement was measured after each image using the question, "How enticing would you rate this image to be?" with the same scale ranging from Not at all (0) to Very much (1).

Valence. Emotional valence was evaluated by asking, "The feeling evoked by the image was…" rated on a scale from Unpleasant (-1) to Pleasant (1).

Perceived Realism. In a final stage of the experiment, each image was shown again, and participants rated its perceived realism with the question, "How realistic was this image?" using a continuous scale anchored at AI-generated (0) and Photograph (1).

Procedure

The study was conducted in line with the born-open principle (Leeuw, 2024), ensuring transparency and reproducibility at every stage. The experiment was implemented entirely in jsPsych (De Leeuw, 2015), with the full code hosted publicly on GitHub, which also served as the platform for running the online study. Raw data were automatically stored in a private Open Science Framework (OSF) repository. Anonymized data, together with all preprocessing and analysis scripts, will be openly released on GitHub to facilitate complete reproducibility.

Participants first provided informed consent before completing a short demographic questionnaire covering gender, age, ethnicity, country of residence, education, and English proficiency. Optional questions on birth control use were also included. They then proceeded to the experimental tasks.

In the first phase, participants were told that the study aimed to validate a new image-generation algorithm. They were informed that they would see images allegedly produced by this algorithm intermixed with real photographs, each preceded by a cue indicating whether the upcoming image was of an "AI-generated" or "Photograph" origin. Their task was to rate each image on arousal, enticement, and valence.

Each participant viewed 60 images in total: 40 erotic images (20 male and 20 female) from the Erotic subset of the Nencki Affective Picture System [NAPS ERO; Wierzba et al. (2015)], and 20 additional images (10 neutral, 10 positively arousing) from the original NAPS database (Marchewka et al., 2014). Each trial followed a fixed timing sequence: a fixation cross (750 ms), a color-coded textual cue (1,250 ms), another fixation cross (500 ms), then the image (2,500 ms). Cues were presented in red, green, or blue, with colors randomly assigned across participants.

Following each image, participants rated their emotional response using three continuous sliders assessing sexual arousal, enticement, and valence. This phase was self-paced, with responses required before continuing.

After completing the image-rating phase, participants filled out two self-report questionnaires: first the BAIT scale, followed by the COPS questionnaire.

In the final phase, participants viewed the same 60 images, presented in a new randomized order. Each was preceded by a 500 ms fixation cross and displayed for 1,000 ms. This time, participants rated each image on perceived realism—how photographic or lifelike it appeared.

At the end of the experiment, participants completed a feedback form. They were asked whether they could distinguish AI-generated from real images, whether AI images appeared more or less arousing, whether cue labels seemed accurate or reversed, and whether specific images stood out as particularly arousing or unarousing.

Finally, participants were debriefed on the true purpose of the study: to examine how image labels (AI-generated vs. real photograph) influence emotional responses. Importantly, they were informed that all images were real photographs, and that the "AI-generated" label was used solely to test the effect of belief on affective reactions. A shareable link to the experiment was also provided see 1.

Data Analysis

Study 2

Methods

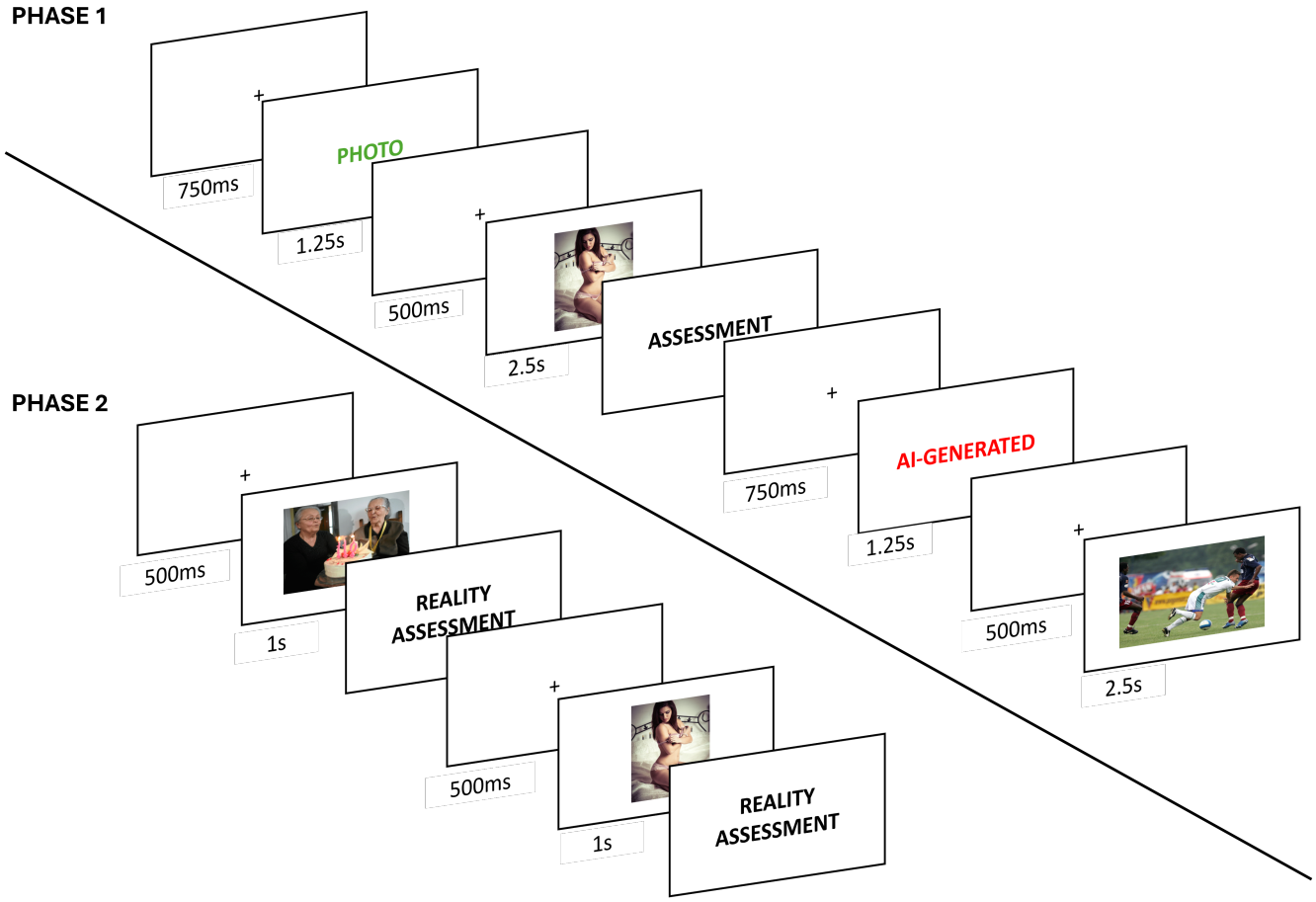
Participants

The initial sample comprised of 279 participants recruited via Prolific©. Participant exclusions were applied as follows: five participants were removed for showing no variability in arousal ratings (i.e., they did not move the response scales). An additional five participants were excluded for completing the study on a mobile device. One participant was excluded due to displaying negative correlations between arousal and both enticement and valence. Furthermore, five participants who self-identified as neither female nor male, and two participants who reported a sexual orientation other than heterosexual, homosexual, or bisexual, were excluded from further analyses. Finally, one participant was removed because the stimuli presented were not relevant to their gender and sexual orientation.

The final sample consisted of 261 participants (Mean = 37.4 ± 12.7, 48.7% Female). %4.12% of participants were from the United Kingdom, 26.52% from South Africa,

Figure 1

Paradigm 2



11.47% from the United States and the remaining 7.89% distributed across other countries.

Ethical approval for this study was obtained from the School of Psychology Ethics Committee at the University of Sussex (ER/EB672/2).

Materials

Procedure

see Figure 2

Data Analysis

References

De Leeuw, J. R. (2015). jsPsych: A JavaScript library for creating behavioral experiments in a web browser. *Behavior Research Methods*, *47*(1), 1–12.

Hatch, S. G., Esplin, C. R., Hatch, H. D., Halstead, A., Olsen, J., & Braithwaite, S. R. (2023). The consumption of pornography scale–general (COPS–g). *Sexual and Relationship Therapy*, *38*(2), 194–218.

Leeuw, J. R. de. (2024). DataPipe: Born-open data collection for online experiments. *Behavior Research Methods*, *56*(3), 2499–2506.

Marchewka, A., Żurawski, Ł., Jednoróg, K., & Grabowska, A. (2014). The nencki affective picture system (NAPS): Introduction to a novel, standardized, wide-range, high-quality, realistic picture database. *Behavior Research Methods*, *46*(2), 596–610.

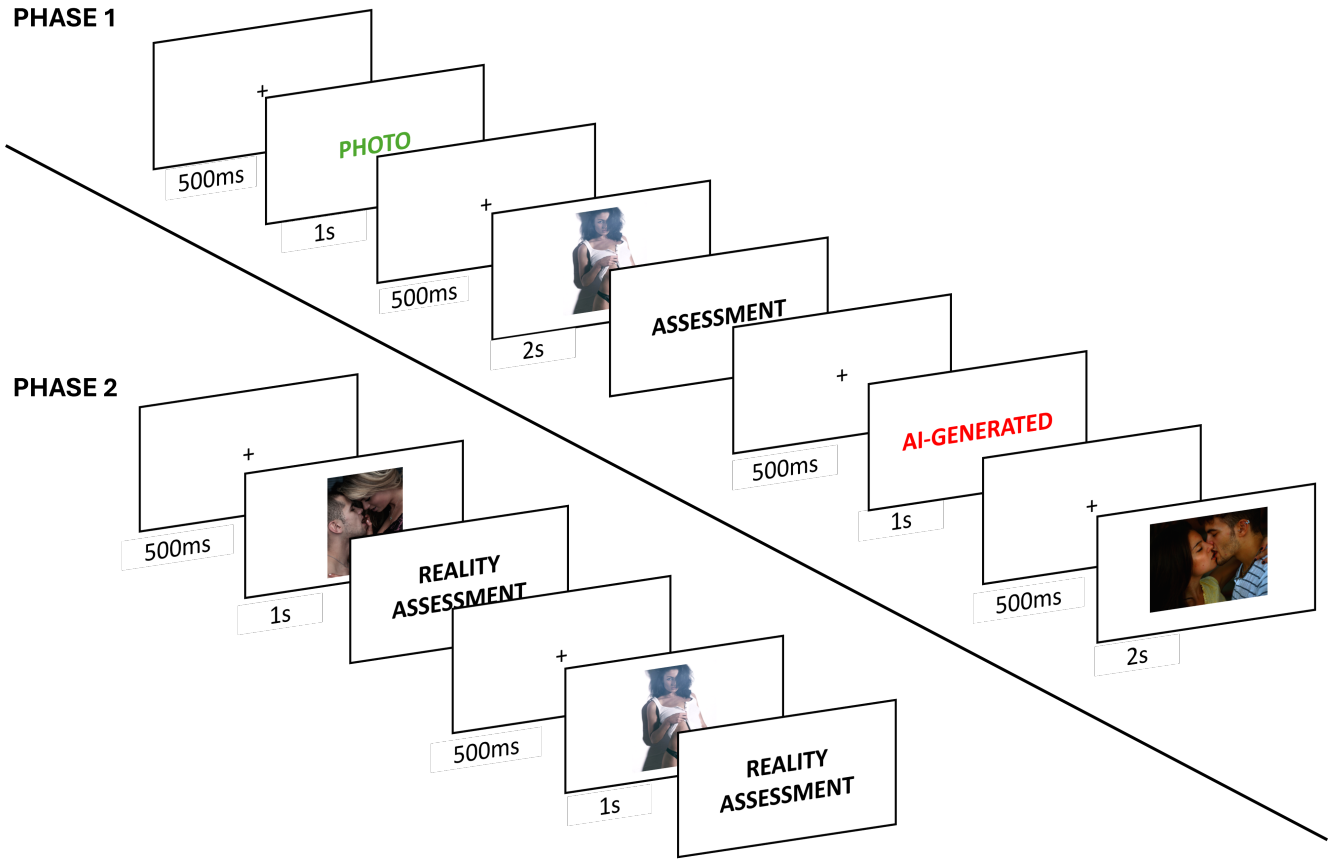
Schepman, A., & Rodway, P. (2020). Initial validation of the general attitudes towards artificial intelligence scale. *Computers in Human Behavior Reports*, *1*, 100014.

Schepman, A., & Rodway, P. (2023). The general attitudes towards artificial intelligence scale (GAAIS): Confirmatory validation and associations with personality, corporate distrust, and general trust. *International Journal of Human–Computer Interaction*, *39*(13), 2724–2741.

Wierzba, M., Riegel, M., Pucz, A., Leśniewska, Z., Dragan, W. Ł., Gola, M., Jednoróg, K., & Marchewka, A. (2015). Erotic subset for the nencki affective picture system (NAPS ERO): Cross-sexual comparison study. *Fron-*

Figure 2

Paradigm 2



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