

Appendix A. AI-Driven Study Conception and Development Process

The present study was conceived through a collaborative, AI-assisted research workflow. The initial idea emerged from the researcher's interest in examining the relationship between moral elevation and altruism. At this stage, the artificial intelligence (AI) research assistant (ChatGPT, OpenAI) was engaged to support the development of the project.

First, the AI generated a series of targeted search codes for the Web of Science database, which were subsequently executed by the researcher. The retrieved citations were downloaded and, after duplicate records were removed, the AI was tasked with screening the remaining references on the basis of their abstracts, article titles, and journal sources. The researcher then obtained the full texts of the retained studies, which the AI summarized in terms of study aims, design, methodology, and findings. Based on these summaries, the AI synthesized the thematic insights, drafted an introduction, and proposed a set of hypotheses to guide the empirical component of the research.

Subsequently, the AI supported the design of the survey instrument. It first identified commonly used scales relevant to moral elevation, empathy, group cohesion, and prosocial intentions, and then recommended the most appropriate measures for the present context. The AI also reviewed prior studies employing video inductions and advised on suitable stimuli for the moral elevation and neutral conditions. Furthermore, it conducted an a priori power analysis using G*Power to determine the required sample size and drafted the methodological description for the study.

Following the finalization of the survey, the researcher administered the study via Prolific, recruiting a sample of 300 participants. Once data collection was complete, the AI assisted with data preparation, including recoding the responses for analysis. To inform the analytic plan, the AI first reviewed the outcome variables and statistical approaches reported in the relevant literature. Guided by this framework, it then performed descriptive analyses, t-tests, and mediation, moderation, and moderated mediation analyses, as well as tests of the intention–behavior gap.

The AI also prepared the results section, highlighting the study's key findings and theoretical contributions. To contextualize these results, the AI revisited the body of literature previously summarized, identified the critical themes of prior discussions, and compared them with the current findings. On this basis, it drafted the discussion section, addressing limitations and suggesting directions for future research.

Finally, the AI generated R scripts for the production of complex visualizations, enabling the researcher to create insightful figures to illustrate the results.

Supplemental Figure. Study flowchart

