# Dr. rer. nat. Neele Engelmann

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# CURRENT POSITION

#### Postdoctoral researcher

Max Planck Institute for Human Development Center for Humans and Machines Berlin, Germany Since 09/2023

# Previous Positions

#### Postdoctoral researcher

Bochum, Germany 04/2022 - 08/2023

Ruhr-University Bochum

Center for Law, Behaviour, and Cognition

- DFG/CAPES-funded project: "Experimental legal philosophy: The concept of law revisited". Principal investigator: Stefan Magen
- September 2022: Research stay at University of Granada (Spain)
- April/May 2023: Research stay at Insper, São Paulo, and PUC Rio de Janeiro (Brazil)

#### EDUCATION

## Dr. rer. nat. Psychology

Göttingen, Germany

 ${\it Georg-August-University~G\"{o}ttingen.~Grade:~magna~cum~laude~("with~great~honors")}$ 

2017 - 2022

Georg-Elias-Müller Institute for Psychology

Cognitive and Decision Sciences

- Thesis: "The role of causal representations in moral judgment". Advisor: Michael R. Waldmann.
- Defense date: August 29, 2022

#### M.Sc. Psychology

Göttingen, Germany

Georg-August-University Göttingen. Grade: 1.3 ("very good")

2014-2017

- Thesis: "An empirical investigation of the effects of prescriptive and statistical normality on judgments of actual causation and accountability". Grade: 1.0 ("very good"). Advisor: Michael R. Waldmann
- Research stay at University College London, UK (Summer 2016), Department of Experimental Psychology, Causal Cognition Lab (David Lagnado)

#### B.Sc. Psychology

Göttingen, Germany

Georg-August-University Göttingen. Grade: 1.3 ("very good", degree awarded with distinction)

2010-2014

- Thesis: "Foraging with threatened options". Grade: 1.0 ("very good"). Advisor: Hansjörg Neth
- Study stay at Université Paris Est Créteil Val de Marne, France (Summer 2014), Studies of French philology, literature, philosophy and history

# **PUBLICATIONS**

Almeida, G. F. C. F., Nunez, J. L., **Engelmann**, **N.**, Wiegmann, A., & de Araújo, M. (2024). Exploring the psychology of LLM's moral and legal reasoning. *Artificial Intelligence*, 333, 104145.

Engelmann, N. (2024). Murderer at the door! To lie or to mislead? [in press]. In A. Wiegmann (Ed.), Advances in experimental philosophy of lying. Bloomsbury.

- Engelmann, N., Almeida, G. F. C. F., Oliveira, F., Prochownik, K., Hannikainen, I., Struchiner, N., & Magen, S. (2024). Apply the laws, if they are good: Moral evaluations linearly predict whether judges should apply the law. *Cognitive Science*, 48(10), e70001.
- **Engelmann**, N., & Hannikainen, I. R. (2024). Does moral valence influence the construal of alternative possibilities? *Possibility Studies & Society*, 2(3), 318–333.
- Engelmann, N., Hannikainen, I. R., González-García, C., & Ruz, M. (2024). Understanding rule enforcement using drift diffusion models. In L. Samuelson, S. Frank, M. Toneva, A. Mackey, & E. Hazeltine (Eds.), *Proceedings of the 46th meeting of the cognitive science society*.
- Engelmann, N., & Kirfel, L. (2024). Who caused it? Different effects of statistical and prescriptive abnormality on causal selection in chains [in press]. In K. Tobia (Ed.), *The Cambridge handbook of experimental jurisprudence*. Cambridge University Press.
- Shurakov, N., Kolbe, M., **Engelmann**, N., & Wiegmann, A. (2024). Borderline lies do LLMs judge like humans? [in press]. In V. C. Müller, A. R. Dewey, L. Dung, & G. Löhr (Eds.), *Philosophy of artificial intelligence: The state of the art.* Springer Nature.
- Stephan, S., **Engelmann**, N., & Waldmann, M. R. (2023). The perceived dilution of causal strength. Cognitive Psychology, 140, 101540.
- Engelmann, N., & Waldmann, M. R. (2022a). How causal structure, causal strength, and foreseeability affect moral judgments. *Cognition*, 226, Article 105167.
- **Engelmann**, N., & Waldmann, M. R. (2022b). How to weigh lives. A computational model of moral judgment in multiple-outcome structures. *Cognition*, 218, Article 104910.
- Wiegmann\*, A., & Engelmann\*, N. (2022). Is lying morally different from misleading? An empirical investigation. In L. Horn (Ed.), From lying to perjury: Linguistic and legal perspectives on lies and other falsehoods (pp. 89–111).
- Engelmann, N., & Waldmann, M. R. (2021). A causal proximity effect in moral judgment. In T. Fitch, C. Lamm, H. Leder, & K. Teßmar-Raible (Eds.), *Proceedings of the 43rd meeting of the cognitive science society* (pp. 2330–2336).
- Viebahn\*, E., Wiegmann\*, A., **Engelmann**, N., & Willemsen, P. (2021). Can a question be a lie? An empirical investigation. *Ergo*, 8, Article 7.
- Hagmayer, Y., & Engelmann, N. (2020). Asking questions to provide a causal explanation Do people search for the information required by cognitive psychological theories? In E. A. Bar-Asher Siegal & N. Boneh (Eds.), Perspectives on causation: Selected papers from the Jerusalem 2017 workshop (pp. 121–147). Springer International Publishing.
- Wiegmann\*, A., & **Engelmann\***, N. (2020). Entwicklungen und probleme der moralpsychologie zu beginn des 21. jahrhunderts [Developments and problems in moral psychology in the 21st century]. In N. Paulo & J. C. Bublitz (Eds.), *Empirische ethik Grundlagentexte aus psychologie und philosophie* (pp. 139–175). Suhrkamp Verlag.
- Hagmayer, Y., & **Engelmann**, N. (2014). Causal beliefs about depression in different cultural groups What do cognitive psychological theories of causal learning and reasoning predict? *Frontiers in Psychology*, 5, Article 1303.
- Neth, H., **Engelmann**, N., & Mayrhofer, R. (2014). Foraging for alternatives: Ecological rationality in keeping options viable. In P. Bello, M. Guarini, M. McShane, & B. Scassellati (Eds.), *Proceedings of the 36rd meeting of the cognitive science society* (pp. 1078–1083).

## Manuscripts in Preparation

Hannikainen, I. R., **Engelmann**, **N.**, González-García, C., & Ruz, M. (2024). Drift diffusion models reveal punitive bias and cognitive conflict in rule enforcement.

<sup>\* =</sup> shared first authorship

# SCHOLARSHIPS AND AWARDS

- 2024: Disciplinary Diversity & Integration Award in Cognitive Science for the paper "Understanding rule enforcement using drift diffusion modelling", Annual Meeting of the Cognitive Science Society, 1000\$.
- 2023: Nominated for the dissertation prize of the German Psychological Society (DGPs), General Psychology section.
- 2023: Travel grant by Fritz Thyssen Stiftung for research stay at Insper, São Paulo, and PUC Rio de Janeiro, Brazil, ca. 3000€.
- 2016: Erasmus+ Scholarship for research stay at University College London, UK, ca. 1500€.
- 2014: Erasmus Scholarship for stay at Université Paris Est Créteil Val de Marne, Paris, France, ca. 1500€.
- 2014: "Niedersachsenstipendium" (Scholarship awarded by the German Federal Ministry of Education and Research for outstanding grades and political engagement, 500€).
- 2012–2013: "Deutschlandstipendium" (Scholarship awarded by the German Federal Ministry of Education and Research for outstanding grades and political engagement, 12 x 300€).

# INVITED TALKS

- Engelmann, N., Kirfel, L., Nussberger, A., Rilla, R., Rahwan, I., "Why does delegation to algorithms facilitate unethical behavior?", Workshop "Machine Behavior Research on Cooperative AI", University of Duisburg, Germany, November 14-15, 2024.
- Shurakov, N., Kolbe, M., Engelmann, N., and Wiegmann, A., "Borderline lies: Do LLMs judge like humans?", Symposium "LLMs for xPhi", Jagiellonian University Kraków, Poland, May 30, 2024.
- Engelmann, N., "Is there a duty to apply immoral laws?", Workshop "Moral cognition in medicine and law", University of Granada, Spain, May 10 11, 2024.
- Engelmann, N., "Is lying morally different from misleading? An empirical investigation", Workshop "Deceptive speech acts in philosophy and law", Jagiellonian University Kraków, Poland, October 05 06, 2023.
- "The role of causal representations in moral judgment", Dissertation competition of the German Psychological Society (DGPs), General Psychology section, Schloss Rauischholzhausen, June 24, 2023.
- "An empirical investigation of the relationship between law and morality", PUC Rio de Janeiro, May 15, 2023.
- "Causal reasoning", Insper, São Paulo, May 02, 2023.
- "The role of causal representations in moral judgment", Stanford University, Causality in Cognition Lab , October 17, 2022.
- "How to weigh lives. A computational model of moral judgment in multiple-outcome structures", Workshop "Moral dilemmas involving self-driving cars", Bundeswehr University, Munich, October 7, 2022.
- "The role of causal representations in moral judgment", University of Granada, Department of Philosophy , September 28, 2022.
- "A causal proximity effect in moral judgment", Chicago/Michigan Psychology and Law Studies Lab , September 29, 2021.
- "A causal proximity effect in moral judgment", Georgetown Law & Language Lab, September 13, 2021.
- Invited discussant, Workshop "The Moral Psychology of War." Oxford Institute for Ethics, Law, and Armed Conflict (ELAC) & Nuffield College Oxford, May 13 14, 2021.
- Invited author, book workshop "Empirische Ethik". Center for Interdisciplinary Research at Bielefeld University, Germany, August 29 30, 2019.
- "Norms and causation Current empirical findings" (with Lara Kirfel), Workshop "The Experimental Philosophy of Morality and Causation Perspectives from Philosophy, Psychology, and Law." Ruhr University Bochum, Germany, June 13, 2017.

# Conference Talks

- Engelmann, N., Hannikainen, I., González-García, C., and Ruz, M., "Understanding rule enforcement using drift diffusion models", 46th Meeting of the Cognitive Science Society, Rotterdam, Netherlands, July 26, 2024.
- Engelmann, N., "Is there a duty to apply immoral laws?", 4th European Experimental Philosophy Conference, Kraków, Poland, May 30 June 2, 2024.
- Engelmann, N. & Wiegmann, A., "Is lying morally different from misleading? An empirical investigation", 2nd European Experimental Philosophy Conference, Granada, Spain, September 08 September 10, 2022.
- Engelmann, N. & Wiegmann, A., "Is lying morally different from misleading? An empirical investigation", Joint Meeting of the Society for Philosophy and Psychology (SPP) and the European Society for Philosophy and Psychology (ESPP), Milan, Italy, July 19 - July 22, 2022.
- Wiegmann, A. & Engelmann, N., "Is lying morally different from misleading? An empirical investigation", Workshop "Commitments in Grammar and Discourse" at the Annual Meeting of the German Society for Linguistics, February 23, 2022 (Online).
- Engelmann, N. & Waldmann, M.R., "Moral reasoning with multiple effects: Exploring the scope of a subjective-utilitarian approach", Annual Meeting of the European Society for Philosophy and Psychology (ESPP), Titania Hotel, Athens, Greece, September 6, 2019.
- Engelmann, N. & Waldmann, M.R., "Moral reasoning with multiple effects: Exploring the scope of a subjective-utilitarian approach", European Conference for Cognitive Science, Ruhr University Bochum, Germany, September 3, 2019.
- Engelmann, N. & Waldmann, M.R., "Moral reasoning with multiple effects", Tagung experimentell arbeitender Psychologen (Teap), London Metropolitan University, UK, April 17, 2019.

# POSTER PRESENTATIONS

- Engelmann, N. & Waldmann, M.R., "How to weigh lives. A computational model of moral judgment in multiple-outcome structures.", Poster presentation at the workshop "Engineering and Reverse-Engineering Morality" at the Annual Meeting of the Cognitive Science Society, July 26, 2021 (online)
- Engelmann, N. & Waldmann, M.R., "A causal proximity effect in moral judgment", Poster presentation at the Annual Meeting of the Cognitive Science Society, July 26 29, 2021 (Online)
- Engelmann, N. & Waldmann, M.R., "A causal proximity effect in moral judgment", Poster presentation at the Annual Meeting of the Society for Philosophy and Psychology (SPP), June 28 July 02, 2021 (Online)
- Engelmann, N. & Waldmann, M.R., "Moral reasoning with multiple effects", Poster presentation at the Annual Meeting of the Cognitive Science Society, Palais des Congrès, Montréal, Canada, July 27, 2019.
- Engelmann, N. & Waldmann, M.R., "Moral reasoning with multiple effects", Poster presentation at the RTG 2070 conference "Understanding Social Relationships", German Primate Center, Göttingen, Germany, October 17, 2018.
- Engelmann, N. & Waldmann, M.R., "The interaction between causality, foreseeability, and outcome valence in attributions of moral responsibility", Poster presentation at the UK Xphi Conference, University College London, UK, June 14, 2018.
- Viebahn, E., Wiegmann, A., Engelmann, N., & Willemsen, P., "Can a question be a lie? An empirical investigation", Poster presentation at the UK Xphi Conference, University College London, UK, June 14, 2018.
- Stephan, S., Engelmann, N., & Kirfel, L., "The influence of learned statistical abnormality on singular causation judgments", Poster presentation at the UK Xphi Conference, University College London, UK, June 14, 2018.
- Engelmann, N., Stephan, S., & Lagnado, D., "Functional norms and causal judgment", Poster presentation at the Annual Meeting of the European Society for Philosophy and Psychology (ESPP), University of Hertfordshire, UK, August 16, 2017.

# TEACHING

#### Courses

Quantitative Methods I (Bachelor Psychology): basics of research design and hypothesis testing, data visualisation, descriptive and inferential data analysis, data visualisation, power analyses. Practical exercises in MS Excel.

• Winter 2017/18, Winter 2018/19, Winter 2019/20, Winter 2020/21, Winter 2021/22

Quantitative Methods II (Bachelor Psychology): General Linear Model and applications (multiple linear regression and its assumptions, ANOVA, contrast analyses, logistic regression, multilevel models). Practical exercises in R and RStudio.

• Summer 2018, Summer 2019, Summer 2020, Summer 2021

## Thesis Supervision

- Deprivationism vs. willhavehadism The influence of life satisfaction on judgments in moral dilemmas. M.Sc. thesis, A. Rinn, Summer 2022.
- Moral intuitions about death. M.Sc. thesis, F. Koniusch, Summer 2022.
- Killing as a side effect: Investigating the violability of soldiers and civilians in war. B.Sc. thesis, K. McElyea, Summer 2021 (co-supervision with Juan Carlos Marulanda).
- AI and moral decisions: Can experience learning and process transparency increase acceptability? M.Sc. thesis, A. Zobott, Summer 2020.
- Lying, deceiving, misleading: Moral evaluation and the influence of perspective. M.Sc. thesis, E. Köhler, Summer 2020 (co-supervision with Dr. Alex Wiegmann).
- The influence of causal structure and beliefs about causal structure on judgments of causation and moral responsibility. B.Sc. thesis, S. Ernst, Summer 2020.
- Moral reasoning with multiple effects: Intentionality and moral responsibility for side effects. B.Sc. thesis, M. Rocholl, Summer 2019.
- The role of outcome valence for causal attributions in disjunctive causal structures. B.Sc. thesis, L. Ahlwes, Summer 2019.
- Causal questions and explanation. B.Sc. thesis, L. Bertz, Summer 2018 (co-supervision with Prof. York Hagmayer).

### SERVICE AND OTHER ACTIVITIES

Institute for Psychology, Georg-August-University Göttingen.

• Member of the Research Data Management and Open Science Working Group  Max Planck Institute for Human Development, Berlin.	since 2024
• Member of search committee for a professorship in work and organizational psychology Institute for Psychology, Georg-August-University Göttingen.	2021/22
• Participant in Dorothea Schlözer mentoring programme  Career mentoring for female PhD candidates and postdocs, selected for academic potential	2021 - 2022
• Co-organizer of R-Ladies Göttingen Organization to promote gender diversity in the R community	2021
• Member of the ethics board	2020 - 2022

# AD HOC REVIEWS

- Acta Psychologica
- Bloomsbury Press
- ullet Cognition
- Cognitive Science
- Cognitive Psychology
- Collabra
- Journal of Experimental Social Psychology
- Scientific Reports
- Social Psychological and Personality Science
- PLoS one
- Proceedings of the Annual Meeting of the Cognitive Science Society
- Royal Society Open Science

# LANGUAGES

• German: Native speaker

• English: Fluent

• French: Conversational

# SOFTWARE AND PROGRAMMING SKILLS

• R (advanced)

• MatLab (basics)

• LaTex (intermediate)

• Python (basics)