

Suhaib Abdurahman

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Google Scholar Profile

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EDUCATION	PhD Social Psychology (University of Southern California) <i>expected 2026</i> Advisor: Morteza Dehghani Focus: Theory-Based Computational Social Psychology
	B.S. Psychology (FU Berlin) 2021
	M.S. Energy and Process Engineering (TU Berlin) 2021 Focus: Process Optimization and Control
	B.S. Energy and Process Engineering (TU Berlin) 2018
RESEARCH TOPICS	Computational Social Science, Agentic AI, Multi-Agent Systems, NLP for Behavior and Social Data, Morality & Values, Decision-Making
RESEARCH METHODS	Multi-Agent Systems, LLMs, ML, NLP, Bayesian Multilevel Modeling, Behavioral Experiments, Agent-Based Modeling
TECHNICAL SKILLS	Programming: Python, R, JS, SQL ML/NLP: PyTorch, HuggingFace, sklearn, transformers (inference & fine-tuning) Multi-Agent/LLMs: LangChain, crewAI, custom pipelines, Mesa Data/Cloud: AWS, Docker, MongoDB, pandas, NLTK Statistics: Bayesian models, SEM, clustering, regression, classification
INDUSTRY EXPERIENCE	LLM & GenAI Applied Science Intern, Amazon Summer 2025 <i>Bedrock Agents Team</i> <ul style="list-style-type: none">Developed a lightweight approach to integrate social cognition into AI agents, improving coordination in multi-agent systems.Demonstrated measurable gains in cooperation and efficiency over Chain-of-Thought across diverse tasks (coding, bargaining, social deduction, research).
	Management Assistant, MicroEnergy International GmbH 2018–2019 <ul style="list-style-type: none">Automated financial reporting pipeline in Python, reducing manual workload.Delivered data-driven process improvements directly to senior management.
RESEARCH EXPERIENCE	Research Assistant, Morality & Language Lab, USC 2021–Present <i>Supervisor: Morteza Dehghani</i> <ul style="list-style-type: none">Built multi-agent simulations of group conflict using quantized LLMs (e.g., Mistral-Small 24B), enabling large-scale behavioral simulations.Designed Python pipelines to extract psychological signals from large-scale social media data via fine-tuned RoBERTa classifiers.Applied Bayesian multilevel models to test the impact of moral targeting on real-world misinformation spread.

- Authored four peer-reviewed articles (PNAS Nexus, JEP:G, AMPPS, JPSP).

Visiting Predoctoral Fellow, Kellogg School of Management 2024
Supervisor: Nour Kteily

- Developed custom multi-agent LLM framework for simulating social dynamics with fine-tuned small LLMs.
- Processed and analyzed 10M+ tweets using transformer-based models to extract psychological features and study large-scale patterns.

Additional Research Roles (UPenn, TU Berlin, FU Berlin; 2018–2021)
 Contributed NLP pipelines, meta-analyses, and predictive modeling across psychological and engineering projects.

SELECTED PUBLICATIONS **Abdurahman, S.**, Ziabari, A. S., Moore, A., Bartels, D., & Dehghani, M. (2025). A Primer for Evaluating Large Language Models in Social Science Research. AMPPS

Abdurahman, S.*, Atari, M.*, Karimi-Malekabidi, F., Trager, J., Park, P., Xue, J., Dehghani, M. (2024). Perils and Opportunities in Using Large Language Models in Psychological Research. PNAS Nexus

Abdurahman, S., Reimer, N.K., Golazizian, P., Baek, E., Shen, Y., Trager, J., Lulla, R., Kaplan, J., Parkinson, C., Dehghani, M. (2024). Targeting Audiences' Moral Values Shapes Misinformation Sharing. Journal of Experimental Psychology: General

Preston, E. G., **Abdurahman, S.**, Woodward, D. W., & West, A. E. (2023). Sharing is in fact about caring: Care concerns feature prominently in subreddits devoted to self-injurious thoughts and behaviors. Computers in Human Behavior, 145, 107786.

Abdurahman, S.*, Vu, H.*, Zou, W., Ungar, L., & Bhatia, S. (2023). A Deep Learning Approach to Personality Assessment: Generalizing Across Items and Expanding the Reach of Survey-Based Research. Journal of Personality and Social Psychology

Vu, H.*, **Abdurahman, S.***, Bhatia, S., & Ungar, L. (2020). Predicting responses to psychological questionnaires from participants' social media posts and question text embeddings. Findings of the Association for Computational Linguistics: EMNLP 2020, 1512–1524.

WORKING PAPERS Osborne, M., **Abdurahman, S.**, Omrani, A., Trager, J., Dehghani, M. (2025) Two Wrongs Is What Makes It Right: How Retaliatory Incivility Garners Social Rewards (Under review, JPSP)

Trager, J., Karimi-Malekabadi, F., **Abdurahman, S.**, & Dehghani, M. (2025). Ideological Threat Influences Political Prejudice: Evidence from Tweets and Real World Events (Under review, Political Psychology)

FELLOWSHIPS AND GRANTS USC PhD Academy Research Grant 2024
 ERP Fellowship 2022
 Ernst-Reuter Fellowship 2019
 Avicenna Fellowship 2015, 2018