

ELISA KREISS

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Education

Stanford University, Linguistics, US

Sept 2018 – June 2023

Doctor of Philosophy

Advisor: Christopher Potts

Dissertation topic: The pragmatics of image descriptions

Osnabrück University, Cognitive Science, Germany

Sept 2014 – Dec 2017

Bachelor in Cognitive Science, Bachelor of Science

Advisors: Judith Degen and Eleni Gregoromichelaki

Thesis: Modeling natural language in the RSA framework: Typicality effects in overinformative referring expressions

Work Experience

Google, PAIR, US

July 2022 – Sept 2022

Internship

Mentor: Meredith Ringel Morris

Publications

Published

Context matters for image descriptions for accessibility:

Challenges for referenceless evaluation metrics

Kreiss, E., Bennett, C., Hooshmand, S., Zelikman, E., Ringel Morris, M., and Potts, C. (2022)

Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP)

Concadia: Towards image-based text generation with a purpose

Kreiss, E., Fang, F., Goodman, N., Potts, C. (2022)

Proceedings of the 2022 Conference on Empirical Methods in Natural Language Processing (EMNLP)

Color overmodification emerges from data-driven learning and pragmatic reasoning

Fang, F., Sinha, K., Goodman, N., Potts, C., Kreiss, E. (2022)

Proceedings of the 44th Annual Conference of the Cognitive Science Society (CogSci)

Inducing causal structure for interpretable neural networks

Geiger, A.*, Wu, Z.*, Lu, H.*, Rozner, J., Kreiss, E., Icard, T., Goodman, N., and Potts, C. (2022)

International Conference on Machine Learning (ICML)

Causal distillation for language models

Wu, Z.*, Geiger, A.*, Rozner, J., Kreiss, E., Lu, H., Icard, T., Potts, C., and Goodman, N. (2022)

North American Chapter of the ACL (NAACL)

ReaSCAN: Compositional reasoning in language grounding

Wu, Z.*, Kreiss, E.*, Ong, D., Potts, C. (2021)

NeurIPS: Datasets and Benchmarks

Intuitive image descriptions are context-sensitive (extended abstract)

Hooshmand, S., Kreiss, E., Potts, C. (2021)

NeurIPS Workshop: Meaning in Context

Modeling subjective assessments of guilt in newspaper crime narratives

Kreiss, E.*, Wang, Z.*, Potts, C. (2020)

Proceedings of the 24th Conference on Computational Natural Language Learning (CoNLL)

Production expectations modulate contrastive inference

Kreiss, E., Degen, J. (2020)

Proceedings of the 42nd Annual Conference of the Cognitive Science Society (CogSci)

When redundancy is useful: A Bayesian approach to “overinformative” referring expressions

Degen, J., Hawkins, R.X.D., Graf, C., Kreiss, E., and Goodman, N.D. (2020)

Psychological Review

Uncertain evidence statements and guilt perception in iterative reproductions of crime stories

Kreiss, E., Franke, M., Degen, J. (2019)

Proceedings of the 41st Annual Conference of the Cognitive Science Society (CogSci)

Awards

Google Research Award

2021 – 2022

PI, Tackling Image Accessibility with Descriptive Texts and Context.

Co-PIs Christopher Potts and Noah D. Goodman.

Stanford Community Impact Award

2022

Stanford Linguistics department research grant

May 2019

Additional funding for the fulfillment of degree milestones

Teaching

Teaching assistant: Introduction to Linguistics

Sept 2021 – Dec 2021

Dr. Katherine Marie Hilton

Teaching assistant: Introduction to Semantics and Pragmatics

Jan 2021 – Mar 2021

Prof. Christopher Potts

Teaching assistant: Cognitive Modeling

Feb 2018 – Sept 2018

Prof. Michael Franke

Teaching assistant: Introduction to Computational Linguistics

April 2017 – July 2017

Prof. Eleni Gregoromichelaki

Teaching assistant: Introduction to Computational Linguistics

April 2016 – July 2016

Prof. Peter Bosch

Mentoring

Kapur, Rhea (2022, Stanford undergraduate student)

Naik, Nandita (2022, Stanford co-term student)

Dash, Akankshita (2022, Stanford Master’s student)

Chi, Bryan (2022, Stanford Master’s student)

Dias, Matheus (2022, Stanford Master’s student)

Cao, Angela (2022, University of Edinburgh Master’s student)

Sinha, Kunal (2021 – 2022, Stanford undergraduate student)

Wu, Zhengxuan (2021 – 2022, Stanford Master’s student)

Fang, Fei (2021 – 2022, Stanford co-term student)
Hooshmand, Shayan (2021, CSLI intern, CMU undergraduate student)

Service

Reviewer for EMNLP Empirical Methods in NLP (EMNLP)	2022
Reviewer for NeurIPS: Datasets and Benchmarks	2022
Reviewer for ACL Association for Computational Linguistics (ACL)	2020, 2021, 2022
Member of the CSLI internship committee , at Stanford University Application committee for Summer research program for undergraduates	2020, 2021, 2022
Reviewer for CogSci Annual Conference of Cognitive Science (CogSci)	2022
Member of the CLiPS program , at Stanford University Internal application committee for Stanford’s NLP group	Aug 2020 – Jan 2022
Reviewer for NeurIPS: Meaning in Context Neural Information Processing Systems (NeurIPS)	2021
Graduate student representative, Linguistics , at Stanford University Internal application committee for Stanford’s NLP group	Oct 2020 – Sept 2021
Linguistics Lab TA , at Stanford University Internal application committee for Stanford’s NLP group	Sept 2019 – July 2020
Member of the faculty search committee , at Osnabrück University Regarding the Cognitive Natural Language Processing & Communication position	June 2017 – July 2018

Talks and Posters

CogSci 2022 , <i>virtual</i> Talk on “Color overmodification emerges from data-driven learning and pragmatic reasoning”. Fang, F. & Kreiss, E. (presenting jointly), Sinha, K., Goodman, N., Potts, C.	July 2022
Tübingen Colloquium (invited talk) , <i>virtual</i> Talk on “Towards Context-Sensitive Image Descriptions with a Purpose”. Kreiss, E.	Jan 2022
NeurIPS: Datasets and Benchmarks Track , <i>virtual</i> Talk on “ReaSCAN: Compositional reasoning in language grounding”. Wu, Z.* (presenting), Kreiss, E.*, Ong, D., Potts, C.	Dec 2021
NeurIPS workshop: Meaning in Context 2021 , <i>virtual</i> Talk on “Intuitive image descriptions are context-sensitive”. Hooshmand, S. (presenting), Kreiss, E., Potts, C.	Nov 2021
CoNLL 2020 , <i>virtual</i> Talk on “Modeling subjective assessments of guilt in newspaper crime narratives”. Kreiss, E.* (presenting), Wang, Z.*, Potts, C.	Nov 2020
AI4All , Stanford Chapter, <i>virtual</i> Talk on “Computational models of language comprehension”. Kreiss, E. (presenting)	July 2020
CogSci 2020 , Toronto, Canada, <i>virtual</i> Talk on “Production expectations modulate contrastive inference”. Kreiss, E. (presenting), Degen, J.	July 2020
CUNY 2020 , Amherst, USA, <i>virtual</i>	March 2020

Poster on “Production expectations modulate contrastive inference”.
Kreiss, E. (presenting), Degen, J.
CAMP3 2019, Santa Cruz, USA October 2019
Talk on “Production expectations modulate contrastive inferences”.
Kreiss, E. (presenting), Degen, J.

CogSci 2019, Montreal, Canada July 2019
Poster on “Uncertain evidence statements and guilt perception in iterative reproductions of crime stories”.
Kreiss, E. (presenting), Franke, M., Degen, J.

CogSci 2017, London, UK July 2017
Poster on “Mentioning atypical properties of objects is communicatively efficient”.
Kreiss, E. (presenting), Degen, J., Hawkins, R.X.D., and Goodman, N.D.

XPRAG 2017, Cologne, Germany June 2017
Poster on “Mentioning atypical properties of objects is communicatively efficient”.
Kreiss, E. (presenting), Degen, J., Hawkins, R.X.D., and Goodman, N.D.

CUNY 2017, MIT, USA Mar 2017
Poster on “Mentioning atypical properties of objects is communicatively efficient”.
Degen, J. (presenting), Kreiss, E., Hawkins, R.X.D., and Goodman, N.D.