# Elizabeth Pankratz

e.c.pankratz@sms.ed.ac.uk
elizabethpankratz.github.io

#### Education

#### 2021-2025

#### PhD in Linguistics and English Language

University of Edinburgh, Scotland

- Thesis: Segmentation, rule formation, and the emergence of generalisation (successfully defended at viva on 11 February, 2025)
- Supervisors: Prof. Jennifer Culbertson and Prof. Simon Kirby

#### 2019-2021

#### Master of Science in Cognitive Systems: Language, Learning, and Reasoning

Universität Potsdam, Germany

- Thesis: Morphological productivity: A Bayesian modelling approach
- Supervisors: Prof. Shravan Vasishth and Dr. Titus von der Malsburg

#### 2017-2019

#### Master of Arts in Linguistics

Humboldt-Universität zu Berlin, Germany

- Thesis: A study of diachronic changes in the productivity of several Early New High German derivational morphemes using the RIDGES corpus
- Supervisor: Prof. Anke Lüdeling

#### 2013-2017

#### Bachelor of Arts (Honours) in Linguistics & German language and literature

University of Alberta, Canada (with year abroad at the Freie Universität Berlin)

- First Class Honours, best of graduating class
- Thesis: Effects of plural semantics on linking element alternation in German nominal compounds
- Supervisors: Prof. Jennifer Dailey-O'Cain and Prof. Jordan Lachler

#### 2012-2013

#### **Certificate in Textile Arts**

Kootenay School of the Arts, Selkirk College, Canada

 Studio-based program on weaving, dyeing, felting, screenprinting, pattern drafting (draping), and couture sewing techniques

# Teaching experience

#### Accreditation

2024

Associate Fellowship

Advance HE

#### Lecturing and course design

### 2023

#### Quantitative Methods for Linguistics and English Language

University of Edinburgh

- Created and held an introductory lecture on frequentist methods and correctly interpreting p-values
- Designed the accompanying tutorial materials

#### 2023

### **Statistics and Quantitative Methods**

University of Edinburgh

- Held three introductory lectures on binomial models, interactions with categorical and continuous predictors, and interpreting Bayesian model estimates
- Designed two of those lectures and the accompanying tutorials
- Created formative and summative assessments

#### **Tutoring**

2023-2025

#### **PPLS Skills Centre: Statistics**

University of Edinburgh

- One-on-one support sessions to help Linguistics students with their statistics problems

#### 2023-2024

## Quantitative Methods for Linguistics and English Language

University of Edinburgh

– Postgraduate course on data manipulation, visualisation, and Bayesian and frequentist inference using R

#### Data Analysis for Linguistics and English Language

University of Edinburgh

- Honours (advanced undergraduate) course on data manipulation and visualisation using the Tidyverse in R

#### 2022-2023

#### **Statistics and Quantitative Methods**

University of Edinburgh

 Honours (advanced undergraduate) and postgraduate course on data manipulation, visualisation, and analysis in the Bayesian framework using R

#### LEL2D: Cross-linguistic Variation: Limits and Theories

University of Edinburgh

- Pre-honours (early undergraduate) course on typological variation and its influence on linguistic theory

#### **Simulating Language**

University of Edinburgh

 Honours (advanced undergraduate) and postgraduate course on implementing Bayesian models of language evolution using Python

#### **PPLS Skills Centre: Writing**

University of Edinburgh

- One-on-one consultation appointments to help students improve their academic writing

#### Workshops

#### 2023 Bayes, stat! A crash course in Bayesian inference

Centre for Language Evolution annual retreat

- Two two-hour sessions giving a conceptual and practical introduction to Bayesian modelling in R using brms
- Workshop website: elizabethpankratz.github.io/bayes\_stat/

#### 2022 Narrative design for academic storytelling

Centre for Language Evolution annual retreat

- A two-hour session on the fundamentals of narrative structure and how using it can improve academic writing

# **Previous positions**

#### 2020-2021

#### Researcher ("Wissenschaftliche Mitarbeiterin")

Humboldt-Universität zu Berlin, CRC 1412 Register, Project A04

- Applied Bayesian machine learning methods (LDA) to probabilistically identify register in corpora
- Published one journal paper and presented two conference/colloquium talks

#### 2021 **F**

### Research assistant to Dr. Titus von der Malsburg

Universität Potsdam

- Conducted psycholinguistic research on the effect of single- vs. multi-trial experiment designs

#### 2019-2021

#### Copy editor and proofreader of Head-Driven Phrase Structure Grammar: The handbook

Language Science Press, Berlin

Copy edited and proofread 30+ chapters

#### 2018-2020

#### Student assistant to Dr. Bob van Tiel

Leibniz-Centre General Linguistics (ZAS), Berlin

- Conducted psycholinguistic research on processing of scalar inferences
- Proofread 5+ papers for Proceedings of Sinn und Bedeutung 2022
- Published two journal papers and presented two conference posters

#### 2017-2019

#### Student assistant to Prof. Uli Reich

Freie Universität Berlin

 Created an audio corpus of Conchucos Quechua using Praat, ELAN, and Python, available at the Freie Universität Refubium

#### 2014

#### Student assistant to Prof. Antti Arppe (Volunteer position)

University of Alberta

- Conducted fieldwork and documentation of Plains Cree in Maskwacîs, Alberta

### **Publications**

#### **Under review**

Pankratz, E., Culbertson, J., & Kirby, S. (Submitted November 24, 2024 to *Open Mind*). Linguistic rule generalisation creates the same distributional structure that feeds it.

#### Journal papers

- Pankratz, E., Kirby, S., & Culbertson, J. (2024). Evaluating the relative importance of wordhood cues using statistical learning. *Cognitive Science*, 48(3), e13429. https://doi.org/10.1111/cogs.13429.
- Pescuma, V. N., Serova, D., Lukassek, J., Sauermann, A., Schäfer, R., Adli, A., Bildhauer, F., Egg, M., Hülk, K., Ito, A., Jannedy, S., Kordoni, V., Kuehnast, M., Kutscher, S., Lange, R., Lehmann, N., Liu, M., Lütke, B., Maquate, K., ... Knoeferle, P. (2023). Situating language register across the ages, languages, modalities, and cultural aspects: Evidence from complementary methods. *Frontiers in Psychology*, *13*. https://doi.org/10.3389/fpsyg.2022.964658.
- Pankratz, E., Arppe, A., & Lachler, J. (2022). Low hanging fruit and the Boasian trilogy in digital lexicography of morphologically rich languages: Lessons from a survey of Indigenous language resources in Canada. *Nordlyd*, 46(1), 193–204. https://doi.org/10.7557/12.6441.
- Pankratz, E., & van Tiel, B. (2021). The role of relevance for scalar diversity: A usage-based approach. Language and Cognition, 13(4), 562–594. https://doi.org/https://www.doi.org/10.1017/langcog.2021.13.

  van Tiel, B., & Pankratz, E. (2021). Adjectival polarity and the processing of scalar inferences. Glossa, 6(1), 32. 1–21. https://doi.org/10.5334/gjgl.1457.
- van Tiel, B., **Pankratz**, **E.**, & Sun, C. (2019). Scales and scalarity: Processing scalar inferences. *Journal of Memory and Language*, 105, 93–107. https://doi.org/10.1016/j.jml.2018.12.002.
- Schäfer, R., & **Pankratz**, **E.** (2018). The plural interpretability of German linking elements. *Morphology*, 28(4), 325–358. https://doi.org/10.1007/s11525-018-9331-5.

#### Conference proceedings

- Pankratz, E., Kirby, S., & Culbertson, J. (2024). The key property of frequency distributions that facilitates linguistic rule generalisation is long-tailedness. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 6433.
  - **Pankratz**, **E.**, Kirby, S., & Culbertson, J. (2024). Why are languages skewed? A Bayesian account for how skew and type count, but not entropy, facilitate rule generalisation. *Proceedings of Evolang XV*, 1-3.
- Keogh, A., **Pankratz**, **E.**, Kirby, S., & Culbertson, J. (2023). Does production facilitate learning morphosyntactic generalisations? *Proceedings of the Annual Meeting of the Cognitive Science Society*, *45*, 3919.
- Pankratz, E., Yadav, H., Smith, G., & Vasishth, S. (2021). Statistical properties of the speed-accuracy trade-off (SAT) paradigm in sentence processing. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 43, 2176–2182.
  - Pankratz, E. (2021). qxoRef 1.0: A coreference corpus and mention-pair baseline for coreference resolution in Conchucos Quechua. *Proceedings of the First Workshop on Natural Language Processing for Indigenous Languages of the Americas*, 1–9.
- van Tiel, B., **Pankratz**, **E.**, Marty, P., & Sun, C. (2019). Scalar inferences and cognitive load. *Proceedings of Sinn Und Bedeutung 23*, 427–441.
- 2017 Lachler, J., & **Pankratz**, **E.** (2017). Moving towards value-added digital repatriation in lexicography for Indigenous languages in Canada. In N. Ostler, V. Ferreira, & C. Moseley (Eds.), *Proceedings of the 21st FEL Conference:*Communities in Control: Learning tools and strategies for multilingual endangered language communities (pp. 107–114).

#### Resources

2021 | qxoRef 1.0: A coreference corpus for Conchucos Quechua

https://github.com/epankratz/qxoRef

#### **Presentations**

#### Invited

- Pankratz, E. (2025). Simulation as a tool for formalising null hypotheses in cognitive scientific research. University of Edinburgh CogSciCon.
- Pankratz, E. (2021). *An entropy-based approach to measuring morphological productivity.* Humboldt-Universität Colloquium for Corpus Linguistics.
  - **Pankratz**, **E.** (2021). Coreference resolution for Conchucos Quechua. Freie Universität Berlin Romanistisches Forschungskolloquium.

#### **Talks**

- Pankratz, E. (2024). Explicit rule learning prompts overhypothesis formation, while implicit distributional learning does not. Centre for Language Evolution talk series.
  - **Pankratz**, E., Kirby, S., & Culbertson, J. (2024). Why are languages skewed? A Bayesian account for how skew and type count, but not entropy, facilitate rule generalisation. Evolang XV.
  - **Pankratz**, **E.** (2024). *Linguistic rule generalisation produces the same distributional structure that feeds it.* Centre for Language Evolution talk series.
- Pankratz, E. (2022). Do entropy, type count, and distribution shape influence the learning of non-adjacent dependencies? Centre for Language Evolution Talk Series.
  - **Pankratz**, **E.**, von der Malsburg, T., & Vasishth, S. (2022). *An entropy-based approach to measuring morphological productivity*. How productive is derivational morphology? (Workshop at the 44th annual DGfS conference).
- Sun, C., **Pankratz**, **E.**, & van Tiel, B. (2021). *Polarity modulates the processing cost of scalar implicatures*. Architectures and Mechanisms for Language Processing (AMLaP 2021).
  - Bildhauer, F., **Pankratz**, E., & Schäfer, R. (2021). *Corpora, inference, and models of register distributions*. Contrastive corpus methodology for language modeling and analysis (Workshop at the 43rd annual DGfS conference).
  - Lüdeling, A., Schäfer, R., **Pankratz**, **E.**, Krause, T., Bildhauer, F., & Golcher, F. (2021). *What is a good corpus?* Humboldt-Universität Register Colloquium (CRC 1412).
  - Hübener, C., & **Pankratz**, **E.** (2021). *Verfugungswandel von Determinativ- und Rektionskomposita ein Fall von Regularisierung?* Humboldt-Universität Colloquium for Corpus Linguistics.
- van Tiel, B., & **Pankratz**, **E.** (2020). Adjectival polarity and the processing of scalar implicature. Sinn und Bedeutung 25.
  - van Tiel, B., & **Pankratz**, **E.** (2020). *Polarity in scalar inference processing*. Degree expressions and polarity effects (Workshop at Leibniz ZAS).
- Pankratz, E., Lachler, J., & Arppe, A. (2019). A survey of Indigenous language tools: The emergence of two lexicographical approaches among Indigenous languages of Canada. 6th International Conference on Language Documentation & Conservation (ICLDC6).
  - **Pankratz**, **E.** (2019). *Derivational morphology in Early New High German*. Humboldt-Universität Colloquium for Corpus Linguistics.
- 2017 Lachler, J., & **Pankratz**, E. (2017). Moving toward value-added digital repatriation in lexicography for Indigenous languages in Canada. 21st FEL Conference: Communities in Control: Learning tools and strategies for multilingual endangered language communities.
  - **Pankratz**, **E.** (2017). Language maintenance in a global world: Creating a middle ground for Plautdietsch in 21st-century Canada. University of Alberta MLCS Undergraduate Conference.

#### **Posters**

- Keogh, A., & **Pankratz**, **E.** (2024). *Simulation as a tool for formalising null hypotheses in cognitive science research.*Annual Meeting of the Cognitive Science Society.
  - **Pankratz**, **E.**, Kirby, S., & Culbertson, J. (2024). *The key property of frequency distributions that facilitates linguistic rule generalisation is long-tailedness*. Annual Meeting of the Cognitive Science Society.
- Keogh, A., **Pankratz**, **E.**, Kirby, S., & Culbertson, J. (2023). *Does production facilitate learning morphosyntactic generalisations?* Annual Meeting of the Cognitive Science Society.
  - Keogh, A., **Pankratz**, E., Kirby, S., & Culbertson, J. (2023). *The role of production for morphosyntactic generalisation*. 77th Language Lunch at Edinburgh.

2021	<b>Pankratz</b> , E., Yadav, H., Smith, G., & Vasishth, S. (2021). <i>Statistical properties of the speed-accuracy trade-off (SAT)</i> paradigm in sentence processing. Annual Meeting of the Cognitive Science Society.
	<b>Pankratz</b> , E. (2021). <i>qxoRef 1.0: A coreference corpus and mention-pair baseline for coreference resolution in Conchucos Quechua</i> . The First Workshop on NLP for Indigenous Languages of the Americas (AmericasNLP) at NAACL 2021.
2020	<b>Pankratz</b> , E., & van Tiel, B. (2020). Can usage of scalar adjectives predict scalar inference rates? UK Cognitive Linguistics Conference 2020 (UKCLC 2020).
2019	van Tiel, B., <b>Pankratz</b> , E., & Sun, C. (2019). Scales and scalarity: Processing scalar inferences. XPRAG 2019.
2018	van Tiel, B., Pankratz, E., & Sun, C. (2018). Processing scalar diversity. Sinn und Bedeutung 23.

# Dissertation supervision

2023 | Sigurd Farstad Iversen

University of Edinburgh, MSc in Evolution of Language and Cognition

# Reviewing

For journals	Cognitive Science, Language and Cognition		
For conferences	Evolang XV; CogSci 2022, 2023, 2025; First Language and Interaction Network event (LINk) 2022;		
	Complexity and Register 2021 (CAR21); 12th Web as Corpus Workshop (WAC-XII)		
For funders	Israel Science Foundation		

# **Event organisation**

2022-2025	Centre for Language Evolution talks Weekly hybrid talk series with 15+ attendees (University of Edinburgh)
2022	<b>Linguistic Circle</b> Biweekly hybrid talk series with 30+ attendees (University of Edinburgh)
2022	Edinburgh Lectures in Language Evolution (ELLE) 2022 Four-lecture hybrid talk series with hundreds of attendees (University of Edinburgh, June 2–23, 2022)
2021	Complexity and Register 2021 (CAR21)  Hybrid workshop with 30+ attendees (Humboldt-Universität zu Berlin, November 19, 2021)
2019	XXII. Deutscher Hispanistentag Conference with 600+ attendees (Freie Universität Berlin, March 27–31, 2019)

# **Funding**

2021-2025	ESRC-funded PhD Studentship Scottish Graduate School of Social Science
2021-2025	SSHRC Doctoral Fellowship Social Sciences and Humanities Research Council of Canada
2019-2021	University Scholarship Potsdam (previously Deutschlandstipendium) Universität Potsdam
2017-2019	Konrad Adenauer Foundation Scholarship Program for International Students
2017	Undergraduate Research Initiative at the University of Alberta CAD 5000 funding for the summer research project <i>Digital lexicography of</i> Canadian Indigenous languages with Prof. Jordan Lachler and Prof. Antti Arppe

# Awards and recognition

2024	Nominated for Student Tutor of the Year University of Edinburgh
2021	Sir James Lougheed Award of Distinction – Master's Level (CAD 15,000) Alberta Scholarships
2019	Featured as one of the LINGUIST List's Rising Stars Nominated by Dr. Roland Schäfer and Prof. Anke Lüdeling
2017	The Dr. John MacDonald Medal in Arts (CAD 1100) For best graduating mark in the Faculty of Arts at the University of Alberta
2014–2017	Seven awards for academic achievement and extracurricular involvement (total CAD 14,200) University of Alberta  - The Rod and Judith Fraser International Undergraduate Learning Award (CAD 4500)  - The Louise McKinney Post-Secondary Scholarship (CAD 2500)  - The Mrs. Kathe & Mr. Siegfried Klotsche Scholarship in German (CAD 2200)  - The Edelweiss-Club Scholarship (CAD 1750)  - The Lason Lang Scholarship (CAD 1000)

The Jason Lang Scholarship (CAD 1000)
The Catherine Folinsbee Memorial Scholarship (CAD 750)

# Outreach

2019 What it means to know a language

Pop linguistics talk to 50+ attendees at the Pint of Science Festival 2019, Berlin

# IT skills

Programming	Python, R, Stan	
Statistical analysis	tistical analysis Bayesian methods, frequentist methods	
Mark-up	⊮T̃ĘX, HTML, Rmarkdown, Quarto, xaringan	
<b>Version control</b> Git, GitHub		
Experiments	jsPsych, Ibex Farm, Testable, Amazon Mechanical Turk, Prolific	
Other software	Affinity suite, Adobe suite, Microsoft Office suite	

# Languages

English	First language
German	Fluent (C1)
French	Intermediate
BSL	Basic
Scottish Gaelic	Basic