## Elizabeth Pankratz

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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. (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., 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.

2023 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.

Pankratz, E., Yadav, H., Smith, G., & Vasishth, S. (2021). Statistical properties of the speed-accuracy trade-off (SAT) paradigm in sentence processing. Annual Meeting of the Cognitive Science Society.

**Pankratz**, **E.** (2021). *qxoRef 1.0: A coreference corpus and mention-pair baseline for coreference resolution in Conchucos <i>Quechua*. The First Workshop on NLP for Indigenous Languages of the Americas (Americas NLP) at NAACL 2021.

2020	<b>Pankratz</b> , E., & van Tiel, B. (2020). <i>Can usage of scalar adjectives predict scalar inference rates?</i> UK Cognitive Linguistics Conference 2020 (UKCLC 2020).
2019	van Tiel, B., <b>Pankratz</b> , <b>E.</b> , & 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)

# **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 Catherine McLean Scholarship in Arts (CAD 1500)
- 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 Statistical analysis

Python, R, Stan

Git, GitHub

stical analysis | Baye Mark-up | LTFX

Bayesian methods, frequentist methods FTFX, HTML, Rmarkdown, Quarto, xaringan

Version control

**Experiments Other software** 

jsPsych, Ibex Farm, Testable, Amazon Mechanical Turk, Prolific

**ftware** Affinity suite, Adobe suite, Microsoft Office suite

## Languages

English German French First language Fluent (C1)

BSL Scottish Gaelic Intermediate

**BSL** Basic

Basic