### Barend François Beekhuizen

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Date of birth January 7, 1987

Place of birth The Hague, The Netherlands

Nationality Dutch

### **Education**

Leiden University and University of Amsterdam September 2010-September 2015

Ph.D., Linguistics (cum laude)

Leiden University September 2007 – August 2010

Research master, Linguistics (cum laude)

Leiden University September 2004 – August 2007

Bachelor of Arts, Dutch Language and Culture

# Academic employment

University of Toronto Mississauga, Department of Language Studies

July 2018- present

Assistant professor

University of Toronto, Department of Computer Science March 2015- June 2018

Post-doctoral researcher

Leiden University, Leiden University Centre for Linguistics September 2013 - August 2015

Lecturer

Leiden University, Leiden University Centre for Linguistics September 2010 - February 2015

PhD candidate

#### **Awards and Grants**

- Winner of the AVT/ANéLA (Dutch Linguistics Society) best dissertation award (EUR 1000).
- For the 2014 Cognitive Science conference paper 'Learning Meaning without Primitives', co-authored with Afsaneh Fazly and Suzanne Stevenson, I received a USD 500 Student Travel Grant, sponsored by the Robert J. Glushko and Pamela Samuelson Foundation.
- I have been granted for four years of PhD research by the Netherlands Organisation for Scientific Research in the competitive *Promoties in de geesteswetenschappen* program.

### **Publications**

- Rice, C., Beekhuizen, B., Stevenson, S., & Armstrong, B. (in press). Meaning dominance norms for homonyms from free associations and subtitles. *Behavior Research Methods*.
- Beekhuizen, B., & Stevenson, S. (in press). More than the eye can see: A computational model of color term acquisition and color discrimination. *Cognitive Science*.
- Matusevych, Y., Beekhuizen, B., & Stevenson, S. (2018). Crosslinguistic transfer as category adjustment: Modeling conceptual color shift in bilingualism. In *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*.
- Beekhuizen, B., Milić, S., Armstrong, B., & Stevenson, S. (2018). What company do semantically ambiguous words keep? Insights from distributional word vectors. In *Proceedings of the 40th Annual Meeting of the Cognitive Science Society*.
- Beekhuizen, B., Watson, J., & Stevenson, S. (2017). Semantic typology and parallel corpora: Something about indefinite pronouns. In *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*.

- Nematzadeh, A., Beekhuizen, B., Huang, S., & Stevenson, S. (2017). Calculating probabilities simplifies word learning. In *Proceedings of the 39th Annual Meeting of the Cognitive Science Society*.
- Beekhuizen, B., Bod, R., & Verhagen, A. (2017). Acquiring relational meaning from the situational context. What linguists can learn from analyzing videotaped interaction. In J. Evers-Vermeul & E. Tribushinina (Eds.), *Usage-based approaches to language acquisition and language teaching* (pp. 73–96). Berlin: De Gruyter Mouton.
- Beekhuizen, B. (2016b). De zijnsstatus van de afhankelijke V1-constructie in het Nederlands. (the ontological status of the dependent verb-first construction in Dutch). *Nederlandse Taalkunde/Dutch Linguistics*, 21(1), 33–59.
- Beekhuizen, B. (2016a). De taalgebruiker, de betekenis en de afhankelijke V1-constructie. (language user, meaning, and the dependent verb-first construction). *Nederlandse Taalkunde/Dutch Linguistics*, 21(1), 81-91.
- Beekhuizen, B., & Stevenson, S. (2016). Modeling developmental and linguistic relativity effects in color term acquisition. In *Proceedings of the 38th Annual Meeting of the Cognitive Science Society*.
- Beekhuizen, B., & Stevenson, S. (2015a). Crowdsourcing elicitation data for semantic typologies. In *Proceedings of the 37th Annual Meeting of the Cognitive Science Society.*
- Beekhuizen, B., & Stevenson, S. (2015b). Perceptual, conceptual, and frequency effects on error patterns in English color term acquisition. In *Proceedings of the Sixth Workshop on Cognitive Aspects of Computational Language Learning*.
- Beekhuizen, B. (2015). Constructions Emerging: A Usage-Based Model of the Acquisition of Grammar (Doctoral dissertation). Leiden University.
- Beekhuizen, B., & Bod, R. (2014). Automating construction work. Data-Oriented Parsing and constructivist accounts of language acquisition. In R. Boogaart, T. Colleman, & G. Rutten (Eds.), *Extending the Scope of Construction Grammar* (pp. 47–74). Berlin: De Gruyter Mouton.
- Beekhuizen, B., Bod, R., Fazly, A., Stevenson, S., & Verhagen, A. (2014). A usage-based model of early grammatical development. In *Proceedings of the Workshop on Cognitive Modeling and Computational Linguistics*.
- Beekhuizen, B., Fazly, A., & Stevenson, S. (2014). Learning meaning without primitives: Typology predicts developmental patterns. In *Proceedings of the 36th Annual Meeting of the Cognitive Science Society*.
- Beekhuizen, B., Bod, R., & Verhagen, A. (2014). The linking problem is a special case of a general problem none of us has solved. *Linguistics*, 90(3), e91–e96.
- Beekhuizen, B., Zuidema, J., & Bod, R. (2013). Three design principles of language: The search for parsimony in redundancy. *Language and Speech*, *56*(2), 265–290.
- Beekhuizen, B., Fazly, A., Nematzadeh, A., & Stevenson, S. (2013). Word learning in the wild: What natural data can tell us. In *Proceedings of the 35th Annual Meeting of the Cognitive Science Society*.
- Karsdorp, F., & Beekhuizen, B. (2010). Regelmaat in een regelloos systeem: De Nederlandse superlatief (Regularity in a rule-less system: The Dutch superlative). *Voortgang: Jaarboek van de Neerlandistiek (Advancement: Annual of Dutch Studies)*, 28, 29–50.

### **Talks**

### Invited conference and workshop talks

• 'V1 bijzinnen. Verbonden in vorm, verdeeld in functie'. (Verb-first subordinate clauses. Connected in form, divided in meaning). Talk given at the *Dag van de Nederlandse Zinsbouw* (Annual day of Dutch Syntax; 28 November 2014).

• 'The acquisition of lexical meaning. A plea for naturalism'. Talk given at the Lorentz institute workshop *Modeling Meets Infant Studies* (12 September 2013).

## Selected invited departmental talks

- 'Two advances in semantic maps: text-based typology and directed graphs'. Talk given at the Max Planck Institute for Psycholinguistics (Nijmegen, the Netherlands) in the Diversity in Language, Culture and Cognition colloquium series (26 April 2018).
- 'Dimensions of ambiguity: What's in the context?' Talk given in the Centre for Language Studies (Radboud Universiteit Nijmegen, the Netherlands) monthly colloquium series (26 April 2018).
- 'Exemplar semantics through parallel corpora. Something about indefinite pronouns'. Talk given at Leiden University (5 February 2017).
- 'Parallel corpora and semantic typology'. Talk given at the *Computational Linguistics Seminar* of the Institute for Logic, Language, and Computation of the University of Amsterdam (1 November 2016).
- 'Errors in word meaning acquisition as explained by semantic typology and computational modeling'. Talk given at the colloquium of the Department of Linguistics, University of California, Santa Barbara (10 March 2016).
- 'Dimensionality reduction and linguistics'. Talk/tutorial given for typological linguists at the University of Amsterdam (28 August 2014).
- 'Learning relational meanings from situated caregiver-child interaction. A computational approach'. Talk given in the *Computational Linguistics Seminar* series, Department of Computer Science, University of Toronto (13 November 2012).

### Peer-reviewed talks at conferences without proceedings

- (with Blair Armstrong, Caitlin Rice, Saša Milić & Suzanne Stevenson) 'How are ambiguous word meanings learned, represented, and processed? Insights from computational modeling'. Talk submitted for the Annual Meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science.
- (with Caitlin Rice, Vladimir Dubrovsky, Suzanne Stevenson & Blair Armstrong) 'Comparing meaning frequency estimates: corpus-based modeling vs. human norms'. Talk given at the 47th Annual Meeting of the Society for Computers in Psychology (9 November 2017)
- 'A usage-based model of early grammatical development'. Talk given at the *Sixth Biennial Conference of the Belgium Netherlands Cognitive Linguistics Association* (12 December 2014).
- (with Max van Duijn) 'Packaged and ready to go. Linguistic tools for communication and mental processing'. Talk given at the 12th International Cognitive Linguistics Conference (27 June 2013).
- (with Aida Nematzadeh, Afsaneh Fazly & Suzanne Stevenson) 'Learning relational meanings from situated caregiver-child interaction. A computational approach'. Talk given at the 12th International Cognitive Linguistics Conference (25 June 2013).
- 'How to learn a grammar from examples. A computational approach'. Talk given at the *Fifth Biennial Conference of the Belgium Netherlands Cognitive Linguistics Association* (15 December 2012).

### **External Service**

- I have reviewed papers for the annual Linguistics in the Netherlands proceedings, the Annual Meeting of the Cognitive Science Society, the Annual Meeting of the Association for Computational Linguistics, as well as for the 2013 Springer volume The Evolution of Social Communication in Primates. A Multidisciplinary Approach.
- Member of the 2015 Program Committee of the Linguistic and Psycholinguistic Aspects of CL stream of the annual conference of the Association for Computational Linguistics.

- Together with Stewart McCauley, Rens Bod, Morten Christiansen and Arie Verhagen, I organized the two-day workshop *Modeling the Mechanisms* at the Eighth International Conference on Construction Grammar in 2015. This workshop brought together computational cognitive modelers and experimental psychologists working on the acquisition of grammar.
- In the spring of 2013, Rens Bod and I organized a one-day workshop on learnability and computational models of language acquisition at the University of Amsterdam.
- Editorial secretary for Nederlandse Taalkunde/Dutch Linguistics (September 2011-July 2015).

### **Academic associations**

- Member of the Cognitive Science Society
- Member of the Association for Computational Linguistics
- Member of the Algemene Vereniging voor Taalwetenschap (Dutch Linguistics Society)

## **Proficiencies**

**Languages:** Dutch is my first language. I have a near-native command of English. I am able to read German, Spanish and French.

**Computer languages and proficiencies:** I consider myself proficient in programming in C++ and Python, several machine learning libraries (sklearn, tensorflow), and doing statistics and data visualization with R.

**Education** In the fall of 2010, I took a course on didactics.

#### References

Available upon request

### **Personal**

• Besides my academic work, I enjoy elaborate cooking projects, road biking, and generative music.