



# C.V. LOUISA BOGAERTS

Assistant Professor & Principal Investigator

Department of Experimental Psychology  
Ghent University, Belgium

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**RESEARCH INTERESTS** Psycholinguistics, language acquisition, reading, language disabilities (dyslexia, aphasia)  
Statistical (implicit) learning, attention, short-term memory, consolidation, and their relation to linguistic abilities  
Individual differences, psychometrics & task development

**EDUCATION** **PhD in Psychology**, Ghent University, Belgium *Oct 2011 – Sept 2015*  
**Master of Science in Psychology**, Theoretical and Experimental Psychology, Ghent University *Sept 2009 – June 2011*  
*Summa cum laude (ranked first)*

**ACADEMIC EXPERIENCE** **RESEARCH**

**Assistant Professor & Principle investigator**, Department of Experimental Psychology, Ghent University *Jan 2022-Present*

**Postdoctoral researcher**, Department of Experimental and Applied Psychology, Vrije Universiteit Amsterdam, The Netherlands *Feb 2020 – Dec 2021*  
Advisor: Prof. Jan Theeuwes

**Postdoctoral researcher & Marie Curie fellow**, The Verbal Information Processing Lab, The Hebrew University of Jerusalem, Israel *Sept 2016 – Jan 2020*  
Advisor: Prof. Ram Frost

**Postdoctoral researcher** Laboratoire de Psychologie Cognitive-CNRS, Aix-Marseille University, Marseille, France *Nov 2015 – Sept 2016*  
Advisor: Dr. Arnaud Rey

**Aspirant researcher (PhD)** Fund Scientific Research Flanders, Department of Theoretical and Experimental Psychology, Ghent University *Oct 2011 – Sept 2015*  
Promotor: Prof. Wouter Duyck, Co-promotor: Dr. Arnaud Szmalec

**Visiting Scholar** at Haskins Laboratories - Yale University, New Haven, USA *Sept – Dec 2013*  
Collaboration with Prof. Kenneth Pugh, Prof. Jay Rueckl, & Dr. Stephen Frost

## TEACHING

**Course coordinator & lecturer** (MSc level) ‘Introduction to Psycholinguistics’, Ghent University. *2022, 2023*

**University Teaching Qualification** (BKO), Vrije Universiteit Amsterdam *2021*

**Course coordinator & lecturer** (BSc level) ‘Sensation and Perception’, Vrije Universiteit Amsterdam *2021*

**Lecturer** (BSc level) ‘Cognitive Psychology’, Amsterdam University College *2020*

**External lecturer** advanced statistics course (MSc & PhD level) ‘An alternative approach to data analysis: Bayesian statistics and modelling’, The Hebrew University of Jerusalem *2017-2019*

## PHD GUIDANCE

**Promotor** of Liesa Ravijs, Haoyu Zhou and Sam Boeve (Ghent University) *Present*

**Co-promotor** of Aisu Li and Yavor Ivanov (Vrije Universiteit Amsterdam) *Present*

## OTHER

- Conference organisation, Scientific and organizing committee** of the International Conference on Interdisciplinary Advances in Statistical Learning 2019, 2022
- Conference organisation, Scientific and organizing committee** of the Psycholinguistics in Flanders meeting 2023
- Program committee** of the Cognitive Science Society meeting, **Scientific committee** TEX2022 2018, 2022
- Guest editor** for a special issue in *Journal of Memory and Language*  
Issue title: Integrating Statistical Learning into Cognitive Science 2019
- Journal reviewer** for *Cognition, Cognitive Science, Memory & Cognition, Journal of Experimental Psychology: Learning Memory and Cognition, Memory, Journal of Cognitive Neuroscience, Brain Sciences, Neuropsychology, Science Advances, Philosophical Transactions: B, Biological Psychology Language Learning, Scientific Studies of Reading, etc.* 2014 – Present
- Grant reviewer** for French National Research Agency (ANR), the German Research Foundation (DFG) and the Israeli Science Foundation (ISF) 2018 – Present
- Member of PhD guidance committee** of Jorn Othmer and Anouk Matthys (Ghent University) 2022 – Present
- Member of PhD jury** for Jose Aguavivas (Basque Center on Cognition Brain and Language), Pieter Verbeke (Ghent University), Mieke Slim (Ghent University), Cátia De Oliveira (York University), Klara Schevernels (Catholic University of Leuven), Pieter Huycke (Ghent University), Nan Qin (Ghent University) 2021 – 2023

- RESEARCH SKILLS** **Programming & software tools:** Presentation (Neurobs), Open Sesame (workshop Aix-Marseille University, Apr 2016) & Open Sesame OSweb, Simulink data acquisition models
- Data-analysis:** Classical frequentist approach: R (mixed effect models), Matlab; Bayesian: JASP, cognitive modeling with JAGS (workshop University of Amsterdam, Aug 2016)
- Neuroimaging:** Electroencephalography (6 month internship training + Advanced MEG/EEG Fieldtrip tool-kit, Donders Institute, Apr 2017), functional MRI (Afni bootcamp National Institute of Health, Dec 2013)
- Other non-invasive physiology:** Eye tracking & pupillometry (Eye-tracking workshop, Goldsmiths University, Dec 2018 + Advanced Eye tracking workshop Haifa University, March 2019), galvanic skin response, heart rate

## **GRANTS, AWARDS AND MEMBERSHIPS**

- Odysseus Starting grant** Type II, Fund Scientific Research Flanders - FWO (€729,125) March 2021
- Individual European Postdoctoral fellowship**, Marie Skłodowska-Curie (€170,500) July 2017 – 2019
- Personal Postdoctoral fellowship**, Fyssen Foundation (€95,000 net) Oct 2015 – Sept 2016
- Personal PhD fellowship**, Fund Scientific Research Flanders - FWO (~€100,000) Oct 2011 – Sept 2015
- Travel grant** for dissemination of results (Canada), Jerusalem Brain Community (\$1,000) May 2018
- Travel grant** for short stay abroad (Israel), Fund Scientific Research Flanders (€2,350) Oct 2014
- Travel grant** for long stay abroad (USA), Fund Scientific Research Flanders (€8,200) Sept 2013
- Yearly Prize Science Communication** of the Royal Flemish Academy of Belgium for Science and Arts, with vzw Breinwijzer 2015
- Prize for scientific work** from German Association for Dyslexia and Dyscalculia (with Wibke Hachmann) 2014
- Memberships:** Fellow of the Psychonomic Society (2017, 2019-2023); Member of the Society for Neuroscience (2020); Associate member of the European Society for Cognitive Psychology (2014, 2017, 2021-2023); Member of the Society for the Neurobiology of Language (2018, 2020)

## **PUBLICATIONS**

### PEER-REVIEWED A-1 ARTICLES

Total number of citations: 1222; h-index: 18; i-index: 23 [Stats from Google Scholar June 12, 2023]

#### **Selection of 5 representative articles in bold**

1. Li, A., Bogaerts, L., Theeuwes, J. (2023). No evidence for spatial suppression due to across-trial distractor learning in visual search. *Attention, Perception, and Psychophysics*. DOI: 10.3758/s13414-023-02667-8 [i-factor: 2.19]
2. Theeuwes, J. Bogaerts, L., van Moorselaar, D. (2022). What to expect where and when: how statistical learning drives visual selection. *Trends in Cognitive Sciences*, 26 (10), 860-872. DOI: 10.1016/j.tics.2022.06.001[i-factor: 20.23]

3. Elazar, A., Alhama, R., Bogaerts, L., et al. (2022). When the “Tabula” is Anything but “Rasa:” What Determines Performance in the Auditory Statistical Learning Task? *Cognitive Science*, *46*(2). DOI: 10.1111/cogs.13102 [i-factor: 2.21]
4. **Bogaerts, L., van Moorselaar, D., Theeuwes, J. (2022). Does it help to expect distraction? Attentional capture is attenuated by high distractor frequency but not by trial-to-trial predictability. *Journal of Experimental Psychology: Human Perception and Performance*, *48*(3), 246–261. DOI: 10.1037/xhp0000986 [i-factor: 2.33]**
5. Li, A., Bogaerts, L., Theeuwes, J. (2022). Statistical learning of across-trial regularities during serial search (in press). *Journal of Experimental Psychology: Human Perception and Performance*, *48*(3), 262–274. DOI: 10.1037/xhp0000987 [i-factor: 2.33]
6. de Waard, J., Bogaerts, L., van Moorselaar, D., & Theeuwes, J. (2022). Surprisingly inflexible: statistically learned suppression of distractors generalizes across contexts. *Attention, Perception, and Psychophysics*, *84*(2), 459–473. DOI: 10.3758/s13414-021-02387-x [i-factor: 2.19]
7. **Bogaerts, L., Siegelman, N., Christiansen, M. & Frost, R. (2021). Is there such a thing as a "good statistical learner"? *Trends in Cognitive Science*, *26*(1), 25-37. DOI: 10.1016/j.tics.2021.10.012 [i-factor: 20.23]**
8. Bogaerts, L., Siegelman, N., & Frost, R. (2020). Statistical learning and language impairments: Towards more precise theoretical accounts. *Perspectives on Psychological Science*. DOI: 10.1177/1745691620953082 [i-factor: 9.31]
9. **Bogaerts, L., Richter, C., & Landau, A.N., & Frost, R. (2020). Beta-band activity is a signature of statistical learning. *Journal of Neuroscience*, *40*(39), 7523-7530. DOI: 10.1523/JNEUROSCI.0771-20.2020 [i-factor: 5.67]**
10. Rey, A., Bogaerts, L., Franco, A., & Favre, B. (2020). Speech onset latencies as a window of regularity extraction within noise. *Quarterly Journal of Experimental Psychology*. DOI: 10.1080/17470218.2017.1307432. [i-factor: 2.08]
11. Bogaerts, L., Frost, R., & Christiansen, M. (2020). Integrating statistical learning into cognitive science. *Journal of Memory and Language*, *115*, 1-5. DOI: 10.1016/j.jml.2020.104167. [i-factor: 3.89]
12. Siegelman, N., Bogaerts, L., & Frost, R. (2019). What determines visual statistical learning performance? Insights from information theory. *Cognitive Science*, *34*(12). DOI: 10.1111/cogs.12803. [i-factor: 2.21]
13. Siegelman, N., Bogaerts, L., Armstrong, B., & Frost, R. (2019). What exactly is learned in visual statistical learning? Insights from Bayesian modelling. *Cognition*, *192*. DOI: 10.1016/j.cognition.2019.06.014. [i-factor: 3.29]
14. Pavlidou, E., & Bogaerts, L. (2019). Implicit statistical learning across modalities and its relationship with reading in childhood. *Frontiers in Psychology*, *10*. DOI: 10.3389/fpsyg.2019.01834. [i-factor: 2.07]
15. Smalle, E.H.M., Szmalec, A., Bogaerts, L., Page, M.P.A., Narang, V., Misra, D., Lohagun, N., Khan O., Singh, Mishra, R.K. & Huettig, F. (2019). Stronger verbal short-term serial recall abilities in literate compared to illiterate people. *Cognition*, *185*, 145-150. DOI: 10.1016/j.cognition.2019.01.012. [i-factor: 3.29]
16. Bogaerts, L., Siegelman, N., Benporat, T., & Frost, R. (2018). Is the Hebb repetition task a reliable measure of individual differences in sequence learning? *Quarterly Journal of Experimental Psychology*, *71*(4), 892-905. DOI: 10.1080/17470218.2017.1307432. [i-factor: 2.08]
17. Rey, A., Minier, L., Malassis, R., Bogaerts, L. & Fagot, J. (2018). Regularity extraction across species: associative learning mechanisms shared by human and non-human primates. *Topics in Cognitive Science*, *11*(3), 573-586. DOI: 10.1111/tops.12343. [i-factor: 2.51]
18. Siegelman, N., Bogaerts, L., Elazar, A., Arciuli, J., & Frost, R. (2018). Statistical entrenchment: prior knowledge impacts statistical learning performance. *Cognition*, *177*, 198-213. DOI: 10.1016/j.cognition.2018.04.011. [i-factor: 3.54]
19. Hung, Y.H., [...], Bogaerts, L. & Pugh, K.R. (2018). Common neural basis of motor sequence learning and word recognition and its relation with individual differences in reading skill, *Scientific Studies of Reading*, *23*(1), 89-100. DOI: 10.1080/10888438.2018.1451533. [i-factor: 2.91]
20. Siegelman, N., Bogaerts, L., Kronenfeld, O. & Frost, R. (2017). Re-defining "learning" in statistical learning: what does an online measure reveal about the assimilation of visual regularities? *Cognitive Science*, *42*(3), 692-727. DOI: 10.1111/cogs.12556. [i-factor: 2.92]
21. **Bogaerts, L., Siegelman, N., Frost, R. (2016). Splitting the variance of statistical learning performance: A parametric investigation of exposure duration and transitional probabilities. *Psychonomic Bulletin & Review*, *23*(4), 1250-1256. DOI: 10.3758/s13423-015-0996-z. [i-factor: 3.64]**
22. Siegelman, N., Bogaerts, L., Christiansen, M., & Frost, R. (2016). Towards a theory of individual differences in statistical learning. *Philosophical Transactions of the Royal Society – Biology*, *372*, 20160059. DOI: 10.1098/rstb.2016.0059. [i-factor: 5.68]
23. Siegelman, N., Bogaerts, L., Frost, R. (2016). Measuring individual differences in statistical learning: Current pitfalls and possible solutions. *Behavior Research Methods*, *49*(2), 418-432. DOI:10.3758/s13428-016-0719-z. . [i-factor: 4.43]

24. Bogaerts, L., Szmalec, A., De Maeyer, M., Page, M. P. A., Duyck, W. (2016). The involvement of long-term serial-order memory in reading development: A longitudinal study. *Journal of Experimental Child Psychology*, 145, 139-156. DOI:10.1016/j.jecp.2015.12.008. [i-factor: 2.30]
25. Smalle, E., Bogaerts, L., Simonis, M., Duyck, W., Page, M.P.A., Edwards, M. & Szmalec, A. (2015). Can chunk size differences explain developmental changes in lexical learning? *Frontiers in Psychology*, 6, 1925. DOI: 10.3389/fpsyg.2015.01925. [i-factor: 2.32]
26. Bogaerts, L., Szmalec, A., Hachmann, W. M., Page, M. P. A., Duyck, W. (2015). Linking memory and language: Evidence for a serial-order learning impairment in dyslexia. *Research in Developmental Disabilities*, 43-44, 106-22. DOI: 10.1016/j.ridd.2015.06.012. [i-factor: 1.84]
27. Hachmann, W.M., Bogaerts, L., Szmalec, A., Woumans, E. Duyck, W., Job, R. (2014). Short-term memory for order but not for item information is impaired in developmental dyslexia. *Annals of Dyslexia*, 64(2), 121-136. DOI:10.1007/s11881-013-0089-5. [i-factor: 1.98]
28. Bogaerts, L., Szmalec, A., Hachmann, W.M., Page, M.P.A., Woumans, E., & Duyck, W. (2014). Increased susceptibility to proactive interference in adults with dyslexia? *Memory*, 23(2), 268-277. DOI: 10.1080/09658211.2014.882957. [i-factor: 1.90]
29. Verreyt, N., Bogaerts, L., Cop, U., Bernolet, S., De Letter, M., Hemelsoet, D., Santens, P., & Duyck, W. (2013). Syntactic priming in bilingual patients with parallel and differential aphasia. *Aphasiology*, 27(7), 867-887. DOI:10.1080/02687038.2013.791918. [i-factor: 1.72]

#### A-1 ARTICLES UNDER REVIEW

30. Ivanov, Y., Theeuwes, J., Bogaerts, L. (revision under review). Reliability of individual differences in distractor suppression driven by statistical learning. *Behavior Research Methods*
31. de Waard, J., van Moorselaar, D., Bogaerts, L., & Theeuwes, J. (revision under review). Statistical learning of distractor locations is dependent on task context. *Scientific reports*
32. Smalle, E., Bogaerts, L. (under review). Sensitive periods in language development: Do children outperform adults on auditory statistical language learning? *Cognitive Science*
33. Frost, R., Samuel, A., Bogaerts, L., Magnuson, J., Holt, L., Christiansen, M. (opinion proposal accepted). Statistical learning serves a higher purpose: Novelty detection in an information foraging system. *Trends in Cognitive Science*

#### PROCEEDING PAPERS & OTHER PUBLICATIONS

34. Bogaerts, L., Siegelman, N., & Frost, R. (in press). Statistical learning. *Oxford Research Encyclopaedia of Psychology*
35. Linzen, T., Siegelman, N. & Bogaerts L. (2017). Prediction and uncertainty in an artificial language. *Proceedings of the 39th Annual Conference of the Cognitive Science Society*.
36. Bogaerts, L., & Duyck, W. (2013). Is dyslexia merely taught? A reaction on Erik Moonen. *Nederlands Van Nu*, 1, 35-37.

#### **PRESENTATIONS** INVITED TALKS

1. Bogaerts, L. Language learners as pattern foragers (2023). **Duolingo research colloquium**, March 16th, New York City, USA
2. Bogaerts, L. Statistical learning: An individual differences perspective (2022). **Catholic University Leuven**, October 4th, Leuven, Belgium
3. Bogaerts, L. Is there such a thing as a ‘good statistical learner’? (2022). **Université Libre de Bruxelles**, April 20th, Brussels, Belgium
4. Bogaerts, L. Towards a better understanding of the mechanisms underlying statistical learning (2021). **School of Psychology – UNSW Sydney**, April 8th, Sydney, Australia
5. Bogaerts, L. Beta-band activity is a signature of statistical learning (2020). **Edmond & Lily Safra Center for Brain Sciences – The Hebrew University of Jerusalem**, September 13th, Jerusalem, Israel
6. Bogaerts, L. Statistical learning as a theoretical construct and as an individual ability (2019). **Department for Biological Psychology and Neuropsychology – Vrije Universiteit Amsterdam**, September 2nd, Amsterdam, The Netherlands
7. Bogaerts, L. Statistical learning as a theoretical construct and as an individual ability (2019). **Department for Biological Psychology and Neuropsychology – Hamburg University**, August 15th, Hamburg, Germany
8. Bogaerts, L., Landau, A.N., Richter, C., & Frost R. (2018). Neurobiological signatures of regularity learning. **McDonnell Foundation Workshop: The Future of Statistical Learning**, August 19-20, Québec city, Canada

9. Bogaerts, L., Landau, A.N., & Frost, R. (2017). Preliminary data blitz: Neural oscillations as a brain signature of statistical learning? **McDonnell Foundation Workshop: The Future of Statistical Learning**, Haskins Laboratories – Yale University, Nov 7-8, New Haven, USA
10. Bogaerts, L., Siegelman, N., Rey, A., & Frost, R. (2016). I see, I see, what you don't see... Statistical learning as an individual ability. **Laboratoire de Sciences Cognitives et Psycholinguistique, Ecole Normale Supérieure**, April 19th, Paris, France
11. Bogaerts, L., Szmalec, A., Page, M.P.A., & Duyck, W. (2015). Linking serial-order learning and language: Evidence from reading (disability). **Laboratoire de Psychologie Cognitive – Université Aix-Marseille**, March 20th, Marseille, France
12. Bogaerts, L., et al. (2013). The SOLID hypothesis: an integrative account of memory and language dysfunctions in dyslexia. **Cognition and Brain Science Unit – Cambridge University**, November 15th, Cambridge, UK
13. Bogaerts, L., et al. (2013). The involvement of serial-order memory in language learning: evidence from novel word learning and dyslexia. **Haskins Laboratories – Yale University**, December 12th, New Haven, USA

**CONFERENCE AND WORKSHOP TALKS (first authorships only)**

14. Bogaerts, L. Visual Statistical Learning and Attention: A Two-Way Street (2022). Symposium at **Psychonomic Society annual meeting**, November 17-20, Boston, USA.
15. Bogaerts, L. Is there such a thing a ‘good statistical learner’? (2022). Symposium at **NVP Meeting of the Dutch Society for Brain and Cognition**, April 28-30, Egmond aan Zee, The Netherlands.
16. Bogaerts, L., Landau, A.N., Richter, C., & Frost R. (2019). Beta power as a brain marker of visual statistical learning. **NTNU-Haskins Laboratories Joint Workshop on Language Acquisition, Statistical learning and fNIRS Applications**, Oct 5-6, Taipei, Taiwan
17. Bogaerts, L., Siegelman, N., & Ram Frost (2017). Re-thinking domain generality vs. domain specificity: The role of prior knowledge in statistical learning. **Psychonomic Society annual meeting**, Nov 9-11, Vancouver, Canada
18. Bogaerts, L., & Rey, A. (2016). Temporal dynamics of sequence learning: The case of quadruplets. **Symposium on Learning, restructuring, grouping, chunking**, July 11, Nice, France
19. Bogaerts, L., Siegelman, N., & Frost, R. (2016). Splitting the variance of statistical learning performance. **Israeli Conference on Cognitive Research**. February 16-18, Akko, Israel
20. Bogaerts, L., De Maeyer, M., Szmalec, A., Page, M.P.A., & Duyck, W. (2015). The involvement of long-term serial-order memory in reading development: A longitudinal study. **Psycholinguistics in Flanders**, May 21-22, Marche-en-Famenne, Belgium
21. Bogaerts, L., Szmalec, A., Page, M.P.A., & Duyck, W. (2014). Linking memory and language: insights from novel word learning and dyslexia. **International Workshop on Learning and Memory Consolidation**, July 10-11, San Sebastian, Spain
22. Bogaerts, L., Szmalec, A., Page, M.P.A., & Duyck, W. (2014). Impaired serial-order learning in adults with dyslexia and children with poor reading skills. **Psycholinguistics in Flanders**, May 8-9, Ostend, Belgium
23. Bogaerts, L., Szmalec, A., Hachmann, W. M., Page, M.P.A., & Duyck, W. (2013). Dyslexia as a dis-order: The SOLID hypothesis. **International Workshop on Reading and Developmental Dyslexia**, May 30-31, San Sebastian, Spain
24. Bogaerts, L., Szmalec, A., Hachmann, W.M., Page, M.P.A., & Duyck, W. (2012). A Hebb learning account of language impairment in dyslexia. **Psycholinguistics in Flanders goes Dutch**, May 6-7, Nijmegen, The Netherlands

**PRESS AND  
OUTREACH**

**Board of advice** [Theater Aan Zee](#) #2023 and organizer of [Brein aan Zee](#)

**Talk on** [FAAR book festival](#), *Why do we forget?* 11/03/2023, Ostend, Belgium

**IBRAIN science festival** on Intelligence, expo booth on implicit learning, 27/11/2022, Ghent, Belgium

**Interview newspaper** [De Morgen](#) on brain research

**Young talent column** in [Knack magazine](#)

**Interview business newspaper** [De Tijd](#) on the receiving occasion of the Odysseus grant

**Marie Curie research selected for ‘Results in Brief’**, European Commission’s [CORDIS website](#)

**Blogposts** reporting relevant findings in the fields of cognitive psychology and brain sciences to the general public ([www.breinvijzer.be/studio-brein/author/louisa-bogaerts](http://www.breinvijzer.be/studio-brein/author/louisa-bogaerts))

**Public lectures for high school graduates**, *Our memory: about remembering and forgetting*, as part of two *Meeting of Minds for Youth* editions, 12/03/2012 and 15/03/2013, Ghent, Belgium

**Child University**, *Introduction to Experimental Psychology* for 9- to 12-year-olds, 27/11/2011, Ghent, Belgium