

# Brent Pitchford

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## ACADEMIC EMPLOYMENT

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- 2025-present*      **Postdoctoral Researcher**, Hoplab and Mathlab, KU Leuven (Hans Op de Beeck & Bert De Smedt)
- 2023-2025*      **Postdoctoral Researcher**, Icelandic Vision Lab, University of Iceland (Heida Maria Sigurdardottir)

## EDUCATION

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- 2018-2023*      **PhD, Behavioural and Cognitive Neuroscience**  
Brock University  
Thesis: *The Influence of Reward Associations in the Facilitation and Impairment of Attention and Conflict Processing*  
Supervisor: Karen Arnell
- 2016-2018*      **MA, Behavioural and Cognitive Neuroscience**  
Brock University  
Thesis: *Self-Control and its Influence on Global/Local Processing: An Investigation of the Role of Frontal Alpha Asymmetry and Dispositional Approach Tendencies*  
Supervisor: Karen Arnell
- 2012-2016*      **BSc, Psychology**  
Carleton University, High Distinction  
Thesis: *Uh, Um... The Distinctive Usage of Filled Pauses in Psychopathic Young Offenders' Speech*  
Supervisor: John Logan

## RESEARCH FELLOWSHIPS AND SCHOLARSHIPS

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- 2019-2022*      **Alexander Graham Bell Canada Graduate Scholarship (Doctoral)**  
National Science and Engineering Research Council (\$105,000 CAD)
- 2019-2020*      **Ontario Graduate Scholarship**  
Government of Ontario (\$15,000 CAD; Declined)
- 2018-2019*      **Ontario Graduate Scholarship**

2017-2018	Government of Ontario (\$15,000 CAD) <b>Ontario Graduate Scholarship</b>
2017-2018	Government of Ontario (\$15,000 CAD; Declined) <b>Alexander Graham Bell - Canada Graduate Scholarship (Master's)</b>
2017	National Science and Engineering Research Council (\$17,500 CAD) <b>Spring Research Fellowship</b>
2016-2017	Department of Graduate Studies (\$4000 CAD) <b>Research Fellowship</b>
2016-2017	Faculty of Graduate Studies (\$2000 CAD) <b>Research Fellowship</b>
2016-2017	Attention Lab (\$2000 CAD) <b>Graduate Fellowship</b>
2016-2017	Attention Lab (\$5000 CAD)

## HONOURS AND AWARDS

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2023	<b>Distinguished Graduate Award</b> Brock University (\$100 CAD)
2021	<b>Library Open Access Publishing Fund</b> Brock University Library (\$1500 CAD)
2018	<b>Certificate of Academic Excellence 2018 - Master's Thesis</b> Canadian Psychological Association
2018-2019	<b>Entrance Scholarship (PHD)</b> Department of Graduate Studies (\$2000 CAD)
2017-2018	<b>Excellence Scholarship</b> Department of Graduate Studies (\$5000 CAD)
2016-2017	<b>Entrance Scholarship (MA)</b> Department of Graduate Studies (\$2000 CAD)
2012-2015	<b>Entrance Scholarship</b> Carleton University (\$4000 CAD)
2013-2016	<b>Deans' Honour List</b> Carleton University

## PEER-REVIEWED PUBLICATIONS

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\* shared first authorship

**Pitchford, B.\***, Devillez, H.\*, & Sigurdardottir, H. M. (2025). Distinct neural processing underlying visual face and object perception in dyslexia. *Neuropsychologia*, *219*, 109268.

**Pitchford, B.**, & Arnell, K. M. (2025). An examination of how reward associations facilitate and impair Stroop performance. *Psychological Research*, *89*(3), 105.

**Pitchford, B.** & Arnell, K. M. (2023). Evaluating individual differences in rewarded Stroop: Reliability and associations with self-report measures. *Psychological Research*, *87*, 686–703.

**Pitchford, B.** & Arnell, K.M. (2021). Individual differences in attentional breadth changes over time: An event-related potential investigation. *Frontiers in Psychology*, *12*, 1-12.

**Pitchford, B.** & Arnell, K.M. (2019). Resting EEG in alpha and beta bands predicts individual

differences in attentional breadth. *Consciousness and Cognition*, 75, 102803.

**Pitchford, B.** & Arnell, K.M. (2019). Self-control and its influence on global/local processing: An investigation of the role of frontal alpha asymmetry and dispositional approach tendencies. *Attention, Perception, & Psychophysics*, 81(1), 173-187.

**Pitchford, B.** & Arnell, K.M. (2019). Speech of young offenders as a function of their psychopathic tendencies. *Canadian Journal of Experimental Psychology*, 73(3), 193-201.

## MANUSCRIPTS UNDER REVIEW AND IN PREPARATION

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\*denotes student mentee, \*\* shared last authorship

Ólafsdóttir, I. M., **Pitchford, B.**, Maeekalle, M.\*, & Sigurdardóttir, H. M. (under review). Why is a raven like a writing desk? The interplay of visual and semantic characteristics of animacy in object perception. Manuscript under review at Psychological Science (PSCI-24-1076). Preprint: <https://doi.org/10.31234/osf.io/szvhw>.

Maeekalle, M.\*, Ólafsdóttir, I. M., **Pitchford, B.\*\*** & Sigurdardóttir, H. M.\*\* (in revision). Mapping and tracking the development of visual and semantic information use in object perception. Manuscript currently under revision at Journal of Experimental Psychology: General (XGE-2025-3470). Preprint: [https://osf.io/hn3vq\\_v1](https://osf.io/hn3vq_v1).

Ovchinnikova, I., Maeekalle, M.\*, Ólafsdóttir, I. M., **Pitchford, B.**, Birgisdóttir, F., Starrfelt, R., & Sigurdardóttir, H. M. (under review). Object discrimination is an independent predictor of children's reading ability. Manuscript currently under review at Nature Human Behaviour (NATHUMBHAV-26010241).

**Pitchford, B.** & Arnell, K. M. (in prep). Classical conditioning and not transference explains the interference by reward associations.

## CONFERENCE PRESENTATIONS

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\*denotes student mentee

**Pitchford, B.**, Maeekalle, M.\*, Ólafsdóttir, I. M., & Sigurdardóttir, H. M. (2025, August). *The Development of High-Level Vision: Mapping and Tracking Changes in Object Foraging Across Childhood*. **Talk** presented at European Conference on Visual Perception (ECVP), Mainz, Germany.

**Pitchford, B.**, Ólafsdóttir, I. M., Maeekalle\*, M., & Sigurdardóttir, H. M. (2024, May). *The contribution of features, shape, and semantics to object similarity*. Poster presented at Vision Sciences Society (VSS), St. Pete Beach, Florida.

**Pitchford, B.** & Arnell, K. M. (2023, February). *Impairment of Stroop performance by reward associations requires congruent trials*. Poster presented at Lake Ontario Visionary Establishment (LOVE) annual meeting, Niagara Falls, Ontario.

**Pitchford, B.** Baker, K. A., Mondloch, C. J., & Arnell, K. M. (2022, November). *Does the other-race effect require attention? An investigation using the attentional blink*. Poster presented at Object Perception, visual Attention, and visual Memory (OPAM) annual meeting, Boston, Massachusetts.

**Pitchford, B.** & Arnell, K. M. (2022, May). *The influence of large and small reward associations on Stroop performance in rewarded and nonrewarded contexts*. Poster presented at Vision Sciences Society (VSS), St. Pete Beach, Florida.

**Pitchford, B.** & Arnell, K. M. (2019, September). *High approach-motivated versus low approach-motivated positive affect following self-control: The relation between ERPs and attentional breadth*. Poster presented at Society of Psychophysiological Research (SPR) annual meeting, Washington, D.C.

**Pitchford, B.** & Arnell, K. M. (2018, November). *Resting EEG in alpha and beta bands predicts individual differences in global/local processing*. Poster presented at Object Perception, visual Attention, and visual Memory (OPAM) annual meeting, New Orleans, Louisiana.

**Pitchford, B.** & Arnell, K. M. (2018, October). *Investigating changes in attentional breadth following self-control: An ERP study*. Poster presented at Society of Psychophysiological Research (SPR) annual meeting, Quebec City, Quebec.

**Pitchford, B.** & Arnell, K. M. (2018, May). *Approach motivation and narrowed attentional breadth following self-control: Investigating the role of asymmetrical frontal activity*. Poster presented at Vision Sciences Society (VSS), St. Pete Beach, Florida.

**Pitchford, B.** & Arnell, K. M. (2017, May). *Executive control processes can narrow attention for those with high approach tendencies*. Poster presented at Vision Sciences Society (VSS), St. Pete Beach, Florida.

**Pitchford, B.** & Arnell, K. M. (2017, May). *Forest for the trees after inhibiting prepotent responses: The association between reward responsiveness and local focus*. Poster presented at Southern Ontario Neuroscience Association (SONA), Brock University, St. Catharines, ON.

**Pitchford, B.** & Logan, J. (2016, June). *Uh, Um... The distinctive usage of filled pauses in psychopathic young offenders' speech*. Poster presented at 2016 Canadian Society for Brain, Behaviour, and Cognitive Science Conference, University of Ottawa, Ottawa, ON.

## ORAL PRESENTATIONS

**Pitchford, B.**, Maeekalle, M.\*, Ólafsdóttir, I. M., & Sigurdardóttir, H. M. (2025, July). *Shifting into high-level vision: Tracking visual object foraging across development*. Talk presented at joint Canadian Society for Brain, Behaviour and Cognitive Science (CSBBCS)/Experimental Psychology Society (EPS) meeting, Dundee, Scotland.

**Pitchford, B.**, Ólafsdóttir, I.M., Maeekalle, M., & Sigurdardóttir, H.M. (2024, May). *Contributions of visual and semantic information in object discrimination*. Talk presented at Different Minds Collaborative (DMC) meeting, online.

**Pitchford, B.**, Ólafsdóttir, I. M., Maeekalle, M.\*, & Sigurdardottir, H. M. (2024, March). *Can object similarity be explained by shape or featural information?* Talk presented at Annual Icelandic Vision Meeting, Hvammstangi, Iceland.

Maeekalle, M.\*, Ólafsdóttir, I. M., **Pitchford, B.**, & Sigurdardottir, H. M. (2024, March). *Disentangling semantics, high-, mid- and low-level visual information important for object discrimination, using CORnet.* Talk presented at Annual Icelandic Vision Meeting, Hvammstangi, Iceland.

Friðriksdóttir, D.\*, Ovchinnikova, I., **Pitchford, B.**, Devillez, H., & Sigurdardottir, H. M. (2024, March). *Project proposal: Neural measures of high-level visual processing in developmental prosopagnosia.* Talk presented at Annual Icelandic Vision Meeting, Hvammstangi, Iceland.

**Pitchford, B.** & Arnell, K. M. (2021, June). *Individual differences in how reward associations affect Stroop performance.* Talk presented at Canadian Society for Brain, Behaviour and Cognitive Science (CSBBCS), Virtual Event.

**Pitchford, B.** (2019). Can resting EEG predict individual differences in attentional breadth? Talk presented at Brock Revolutionary Exploratory Workshops on Topics Related to Psychological Science: Data Blitz, Brock University, St. Catharines, ON.

**Pitchford, B.** (2017). Seeing “more of the trees” after inhibiting prepotent responses. Talk presented at Brock Revolutionary Exploratory Workshops on Topics Related to Psychological Science: Data Blitz, Brock University, St. Catharines, ON.

## TEACHING EXPERIENCE

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### Teaching Apprenticeship

Fall 2020            **Teaching Apprenticeship, Brock University**  
*Participated in the development and delivery of third-year statistics in psychology (Computer Data Analysis). Designed and delivered lectures, created assignments and questions, all of which were based on lecture content.*

### Teaching Assistantships

Fall 2018-2022    **Teaching Assistant, Brock University**  
Course: Computer Data Analysis (PSYC 3P39)  
*Helped students with assignments for one hour following each lecture; marked weekly assignments; provided substantial feedback on writing and data analyses; worked one-on-one with students to help them with assignments/exam material*

Winter 2019        **Course Coordinator/Teaching Assistant, Brock University**  
Winter 2018        Course: Personality (PSYC 2P25)  
& Winter 2021     *Primary instructor for two seminars/week; facilitated class discussions and activities; marked written assignments; completed administrative tasks*

Fall 2017            **Lab Demonstrator and Instructor, Brock University**

& Winter 2017 & Winter 2020 & Winter 2022 Course: Cognition (PSYC 2P20)  
*Primary instructor for two computer lab sessions/week; delivered lectures and guided students through cognitive experiments; facilitated class discussions; marked assignments*

Fall 2016 **Teaching Assistant, Brock University**  
**Course:** Health Psychology (PSYC 3P51)  
*Primary instructor for two seminars/week; facilitated class discussions and activities; marked oral presentations and written assignments/exams*

## MENTORING EXPERIENCE

2024 Supervised independent project – G. Gunnarsson  
2023 - 2024 Supervised two year master's thesis – M. Maeekalle  
2023 Supervised independent project – S. Jóhannsdóttir

## PROFESSIONAL DEVELOPMENT

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November 27, 2025 **Python for Data Science**  
Workshop on important Python modules: pandas, seaborn, scikit-learn.

August 6-16, 2024 **Summer Institute for Computational Social Science**  
Instructional program involving group problem sets, and participant-led research projects in computational social science. Topics covered included machine learning, network analysis, and digital experiments, as well as ethics, validity, and the role of theory in computational research.

April 23-27, 2018 **Brock University & SHARCNet: EEG Analysis Workshop**  
EEG analysis workshop was allowing for hands-on experience exploring advanced EEG analysis methods in a collaborative setting.

April 10, 2018 **Advanced TA Certificate in Teaching in Higher Education**  
Certificate awarded for the completion of teaching workshops (e.g., *working with international students, using online resources for TAing*) and completion of a statement of teaching philosophy.

April 10, 2017 **TA Certificate in Teaching and Learning in Higher Education**  
Certificate awarded for the completion of teaching workshops.

March 25-26, 2017 **Software Carpentry at Brock University: BASH, GIT, Octave/Matlab**  
Hands-on workshop covering basic concepts and tools, including program design, version control, data management, and task automation.

## ACADEMIC AND ADMINISTRATIVE EXPERIENCE

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### AD Hoc Reviewer

2021-present Imaging Neuroscience; Attention, Perception, & Psychophysics; Behavior Research Methods; Clinical Interventions in Aging; Journal of Experimental Psychology: Human Perception and Performance

## University Service

- 2025                    **Internal Examiner (Master's Theses)**  
Faculty of Psychology and Educational Sciences, KU Leuven
- 2014–2016            **Vice President of Finance**  
Psychology Society of Carleton University

## External Service

- 2025                    **External Examiner (PhD Admissions)**  
University of Helsinki

## Science Communication

- 2025                    Interviewed for PsyPost Article (<https://www.psypost.org/study-reveals-visual-processing-differences-in-dyslexia-extend-beyond-reading/>)
- 2019                    Featured in Brock News for NSERC Research (<https://brocku.ca/brock-news/2019/05/student-researchers-get-federal-funding-boost/>)

## PROFESSIONAL MEMBERSHIPS

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- Vision Sciences Society (VSS)
- Canadian Society of Brain, Behaviour, and Cognitive Science (CBBCS)
- Society of Psychophysiological Research (SPR)
- Psychonomics Society

## REFERENCES

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University of Iceland  
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Reykjavik, Iceland  
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