



# Alexa Ruel

PHD CANDIDATE IN EXPERIMENTAL PSYCHOLOGY

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## Summary

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- PhD Candidate in Experimental Psychology at Concordia University studying decision-making strategies & cognitive control across the lifespan.
- Skills: Programming, Electroencephalography, Advanced Analysis Techniques, Teaching & Event Organization
- Other interests: Science Communication and Yoga

## Education

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### Concordia University

DOCTOR OF PHILOSOPHY IN EXPERIMENTAL PSYCHOLOGY

Montreal, Canada

2018-Present

### Concordia University

MASTER OF ARTS, EXPERIMENTAL PSYCHOLOGY

Montreal, Canada

2016-2018

### McGill University

BACHELOR OF ARTS, PSYCHOLOGY

Montreal, Canada

2012-2016

## Awards and Grants

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**Total value:** \$97 500

### Scientific Citizenship Award

Center for Research in Human  
Development

IN RECOGNITION OF: RECOGNIZES TRAINEES WHO HAVE SHOWN EXEMPLARY SCIENTIFIC CITIZENSHIP THROUGH A RANGE OF UNDERRECOGNIZED ACTIVITIES SUCH AS HELPING OTHERS, EXEMPLARY ETHICAL CONDUCT, INFORMAL TEACHING ACTIVITIES, OUTREACH, OR ACTIVITIES THAT BUILD COMMUNITY..

2021

- Value: \$500

### Public Scholar

Public Scholar Program

IN RECOGNITION OF: TEN PHD CANDIDATES REPRESENTING THE FACE OF GRADUATE EDUCATION AND EXCELLENCE IN RESEARCH AT CONCORDIA UNIVERSITY .

2021-2022

- Value: \$10 000

### Postgraduate Scholarship

NSERC

IN RECOGNITION OF: DOCTORAL STUDENTS' ACADEMIC SUCCESS AND RESEARCH POTENTIAL.

2020-2023

- Value: \$63 000

### Faculty of Arts and Science Graduate Fellowship

Concordia University

IN RECOGNITION OF: ACADEMIC SUCCESS AND RESEARCH POTENTIAL.

2016, 2017, 2018 & 2019

- Value: \$6 000

## Teaching & Leadership Experiences

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### TEACHING EXPERIENCE

#### Teaching Assistant

LIFESPAN DEVELOPMENT

Summer 2021

- Hold weekly classes teaching students material to complement lectures.
- Answer any questions students may have about class material and grade assignments.

## Teaching Assistant

RESEARCH METHODS AND DESIGNS

Winter 2018 & 2019

- Hold weekly classes teaching students material to complement lectures.
- Answer any questions students may have about class material and grade assignments.

## Teaching Assistant

INTRODUCTION TO STATISTICS 1

Winter 2018 & 2019

- Hold weekly classes teaching students material to complement lectures.
- Answer any questions students may have about class material and grade assignments.

## Student Supervision

HONOURS PROJECT

2018-2019

- Help the student with the design of their study, testing, data analysis & interpretation
- Correct and evaluate the student's thesis.

## LEADERSHIP/OUTREACH

### Communicating Science Conference 2021 (ComSciCon21)

Online

ATTENDEE

August 4-7, 2021

- Share, learn from and connect with other science communication enthusiasts

### CSBBCS conference 2021

Montreal, QC

STUDENT ORGANIZER

June 17-18th 2021

- Assist with various tasks as part of organizing of the CSBBCS conference

### Concordia's Journal of Psychology and Neuroscience (CJPN)

Concordia University

CO-FOUNDER AND LIAISON

2021-present

- Work with Editors-in-Chief of CJPN to ensure the journal runs smoothly

### PsychOut!

Concordia University

STUDENT ORGANIZER

Winter 2021

- Event planning, Advertisement and Coordination

### Brownbag Meetings on Cognition

Concordia University

COORDINATOR

2019-present

- Organize weekly meetings with faculty and graduate students interested in Cognition

### Concordia's Journal of Accessible Psychology (CJAP)

Concordia University

FOUNDER & EDITOR-IN-CHIEF

2019-present

- Plan workshops on the topic of science communication, supervise all CJAP team members, supervise yearly online publication

### Concordia's Yoga Club

Concordia University

YOGA INSTRUCTOR

2019-2020

- Organize bi-weekly yoga classes for graduate and undergraduate students

## SKILLS

### Programming

EXPERIMENTAL DESIGN, DATA VISUALIZATION & ANALYSIS AND WEBSITE CREATION

- R, Matlab, Python, Javascript & HTML

### Imaging

NEURAL IMAGING TECHNIQUES FOR RESEARCH

- Electroencephalography (EEG)

### Teaching

IN PERSON & ONLINE TEACHING

- Microsoft Office, Zoom, Moodle

## Publications

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**Ruel, A.**, Bolenz, F., Li, S-C., Eppinger, B. (in prep). Age differences in model-based decision-making under varying demands on the representation of state spaces.

**Ruel, A.**, Devine, S., Eppinger, B. (2021). Resource-rational approach to meta-control problems across the lifespan.

- Ruel, A.**, Chiarella, S.S., Crivello, C., Poulin-Dubois, D. (2020) Concurrent Validity of the Modified Checklist for Autism in Toddlers (M-CHAT): Socio-cognitive and Verbal Skills in 18-Month-Old Infants. *Journal of Autism and Developmental Disorders*, 1-17.
- Poulin-Dubois, D., Hastings, P.D., Chiarella, S.S., Geangu, E., Hauf, P. **Ruel, A.**, Johnson, A. (2018). The eyes know it: Toddlers' visual scanning of sad faces is predicted by their theory of mind skills. *PLOS ONE*, 13(12), e0208524.
- Burnside, K., **Ruel, A.**, Azar, N., Poulin-Dubois, D. (2017). Implicit False Belief Across the Lifespan: Non-replication of an Anticipatory Looking Paradigm. *Cognitive Development*, 46, 4-11.

## Conference Presentations

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### PUBLISHED ABSTRACTS

- Ruel A.**, Bolenz, F., Li, S-C., Eppinger, B. (2019, July). Adult Age Differences in Dynamics of Model-based Decision-making. Poster session presented at RLDM, Montreal, QC.

### CONFERENCE TALKS

- Sean Devine, Cassandra Neumann, & **Alexa Ruel**. Life of the mind: Judgment and decision making in human ageing. Speech given at *First Annual CRDH Webinar Series*, Montreal, Canada, April 2020.

### POSTER PRESENTATIONS

- Ruel A.**, Bolenz, F., Li, S-C., Eppinger, B. (2019, September). Older Adults Demonstrate Model-based Decision-making when Task Demands are Reduced. Poster session presented at MCC, Berlin, Germany.
- Ruel, A.**, Crivello, C., Chiarella, S., Burdman-Villa, J., & Poulin-Dubois, D. (2019, May). Testing the concurrent validity of the modified checklist for autism in toddlers (M-CHAT) in 18-month-olds. Poster session presented at SRCD, Baltimore, MD.
- Delisle, A., Burdman-Villa, J., Rene, J.L., **Ruel, A.**, & Poulin-Dubois, D. (2019, March). Qui sait quoi? L'apprentissage social selectif est lie aux competences metacognitives et a la theorie de l'esprit chez les enfants d'age prescolaire. Poster session presented at SQRP, Mont-Tremblant, QC.
- Ruel, A.**, Poulin-Dubois, D. (2018, May). Labels as an invitation to form categories in infancy. Poster session presented at APS Annual Convention, San Francisco, CA.
- Ruel, A.**, Olineck-Jolin, K., Corbit, J., & Poulin-Dubois, D. (2018, May). Infants' reactions to a social, humanoid robot. Poster session presented at Development 2018, St-Catharine's, ON.
- Ruel, A.**, & Poulin-Dubois, D. (2018, March). Do words facilitate the formation of categories in infancy? Poster session presented at Montreal Cognitive Science Day, Montreal, QC.
- Poulin-Dubois, D., Olineck-Jolin, K., Corbit, J., & **Ruel, A.** (2017, October) Can Infants discern the Goals and Intentions of a Humanoid Robot? Poster session presented at CDS, Portland, OR.
- Ruel, A.**, Burnside, K., Azar, N. Poulin-Dubois, D. (2017, March). L'attribution implicite de fausses croyances: Une non-replication de l'epreuve de regard anticipatoire. Poster session presented at SQRP, Montreal, QC.

### SCIENCE COMMUNICATION OUTREACH

'Opinion: It's time seniors had technology tailored to them' by Alexa Ruel in Montreal Gazette, 21 July, 2021.

CJAD 800, Montreal Now with Aaron Rand and Natasha Hall: Interview on Montreal Now

## Research Experience

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## **Lifespan Decision-Making Lab**

PHD STUDENT

- Examine the neural mechanism supporting changes in decision-making strategies across the lifespan
- Teaching Assistant & Undergraduate Student Supervision

*Concordia University*

*2018-present*

## **Cognitive and Language Development Lab**

MASTER'S STUDENT

- Examine the impact of language development on category formation in infancy
- Teaching Assisan & Undergraduate Student Supervision

*Concordia University*

*2016-2018*

## **McGill Youth Study Team**

RESEARCH ASSISTANT

- Data Entry and Coding
- Assist in the organization of questionnaire measures for administration to first nations children

*McGill University*

*2014-2016*

## **Centre de Jour en Pedopsychiatrie**

RESEARCH ASSISTANT

- Film the administration of several tasks and protocols
- Interact with parents and their children

*Universite de Montreal*

*Summer 2015*

## **McGill Infant Development Center**

RESEARCH ASSISTANT

- Interact with parents and their infants & act in the studies.
- Data entry and coding

*McGill University*

*2013-2014*

## **Summer Schools**

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### **Summer School in Social Neuroscience & Neuroeconomics**

ATTENDEE

- Decison making, Risk taking, Moral judgements

*Duke University*

*June 2021*

### **Virtual Summer School in Pattern Recognition in Neuroimaging**

ATTENDEE

- Bayesian Statistics, Calcium Imaging, Causal Inference, Deep Learning, EEG & MEG, fMRI, Machine Learning

*University of Vienna*

*September 2020*

## **Reviewer Experience**

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### **Journal of Trial and Error**

*January 2020*

### **Biological Psychiatry**

*January 2020*

### **Nature Communications**

*January 2020*

### **Cognitive and Affective Behavioral Neuroscience**

*July 2019*

### **Plos ONE**

*February 2019*

### **Developmental Science**

*September 2020*

## **Employment**

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### **Tutor**

LIBERTY TUTORING

- Plan weekly tutoring sessions in math, science or French for elementary and/or high school students.
- Give weekly feedback to the students' parents about their child's progress.

*2017-present*

## **Receptionist**

OM WEST WELLNESS (AND MASSAGE)

2019-2020

- Book client appointments for wellness treatments & check all clients in yoga classes
- Process payemnts & answer emails

## **Front Desk Receptionist**

BEACONSFIELD RECREATION CENTER

2014-2016

- Ensure all participants register and pay for their desired activities.
- Create new files for residents and non-residents