# Félix Desmeules-Trudel, Ph.D.

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**EXPERTISE:** Psycholinguistics, Phonetics, L2 Acquisition, Language Development, Lexicon, Statistical and Computational Methods

#### **EMPLOYMENT**

2019-2020 BrainsCAN Associate – top-up (Canada First Research Excellence Fund)

Western University – Brain and Mind Institute

2018-2020 Postdoctoral Fellow (Québec Research Funds – Society and Culture)

Western University – Department of Psychology || Brain and Mind Institute Language, Reading, and Cognitive Neuroscience Lab (Dr. Marc Joanisse)

#### **EDUCATION**

2013-2018 **Ph.D.** in Linguistics

University of Ottawa, Ottawa, ON (Canada)

Dissertation: Spoken word recognition and phonetic detail in an L1 and an L2

Supervisor: Dr. Tania Zamuner

2011-2013 **M.A.** in Linguistics

Université Laval, Québec City, QC (Canada)

Memoir: Perception of French nasal vowels by Brazilian learners

Supervisor: Dr. Johanna-Pascale Roy

2008-2011 **B.A.** in Linguistics (minor in Psychology)

Université Laval, Québec City, QC (Canada)

## **PAPERS**

**Desmeules-Trudel, F.**, Moore, C., & Zamuner, T. S. (2020). Monolingual and bilingual children's processing of coarticulation cues during spoken word recognition. *Journal of Child Language*. FirstView.

**Desmeules-Trudel, F.**, & Joanisse, M F.. (2020). Discrimination of four Canadian-French vowels by native Canadian-English listeners. *The Journal of the Acoustical Society of America*, 147(5), EL391-EL395.

**Desmeules-Trudel, F.**, & Zamuner, T. S. (2019). Gradient and categorical patterns of spoken word recognition and processing of phonetic details. *Attention, Perception, & Psychophysics*, 81(5), 1654-1672.

**Desmeules-Trudel, F.**, & Brunelle, M. (2018). Phonotactic restrictions condition the realization of vowel nasality and nasal coarticulation: Duration and airflow measurements in Québécois French and Brazilian Portuguese. *Journal of Phonetics*, 69, 43-61.

Zamuner, T. S., Moore, C. E., & **Desmeules-Trudel, F.** (2016). Toddlers' sensitivity to within word coarticulation during spoken word recognition: Developmental differences in lexical competition. *Journal of Experimental Child Psychology*, 152, 136-148.

**Desmeules-Trudel, F.** (2015). Perception of Québec French nasal vowels by Brazilian learners: A pilot study. *Langues et linguistique*, *35*, 40-54.

**Desmeules-Trudel, F.** (2015). Propriétés aérodynamiques des voyelles nasales et potentiellement nasalisées en français québécois [Aerodynamic properties of Québécois French nasal and potentially nasalized vowels]. In Vinerte, S. (ed.), *Proceedings of the 2015 Annual Conference of the CLA*, Ottawa, ON.

**Desmeules-Trudel, F.** (2015). The aerodynamics of vowel nasality and nasalization in Brazilian Portuguese. In The Scottish Consortium for ICPhS 2015 (ed.), *Proceedings of the 18th ICPhS*, Glasgow, UK. Paper number 0769.

#### PAPERS IN PREPARATION AND UNDER REVIEW

Bouchard, M-E. & **Desmeules-Trudel, F**. (under review). *Nonconvergence toward the standard: The maintenance of a distinctive use of rhotics among the Santomean diaspora*.

**Desmeules-Trudel, F.**, & Joanisse, M F. (under review). The impacts of sleep-related memory consolidation and phonetic-assimilation training on new-word learning and vowel discrimination in a second language.

**Desmeules-Trudel, F.**, & Zamuner, T. S. (under review). Spoken word recognition in a second language: The importance of phonetic details.

**Desmeules-Trudel, F.**, Bernard, A., Johnson, E., & Zamuner, T. S. (in preparation). *Flexibility of accented-speech processing in toddlers: A time course analysis of eye movements*.

**Desmeules-Trudel, F.**, & Joanisse, M. F. (in preparation). *Sound miscategorizations, word learning and processing in a second language: An EEG study.* 

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Lopez, B., **Desmeules-Trudel, F.**, Bernard, A., & Zamuner, T. S. (in preparation). *Shifts in the direction of the production effect in children aged 2 to 6 years old*.

#### **ORAL PRESENTATIONS**

**Desmeules-Trudel, F.**, & Joanisse, M. (2020). Articulatory-based mappings for second language speech discrimination. Oral presentation at the *CLA Annual Conference Special Session on L2 Speech Learning*, Western University, London, ON. May 30-June 1.

**Desmeules-Trudel, F.**, & Joanisse, M. (2019). Memory traces of newly-learned words that contain nonnative sounds are more robust after sleep consolidation. Oral presentation at the *CLA Annual Conference*, University of British Columbia, Vancouver, BC. June 1-3.

**Desmeules-Trudel, F.**, & Zamuner, T. S. (2017). Une explication dynamique de l'interface phonétique-phonologie: Perception de la nasalisation des voyelles en français canadien [A dynamic explanation of the phonetics-phonology interface: Perception of Canadian French vowel nasalization]. Oral presentation at the *CLA Annual Conference*, Ryerson University, Toronto, ON. May 27-29.

**Desmeules-Trudel, F.**, Moore, C. E., & Zamuner, T. S. (2016). Boat or bone? Children's sensitivity to coarticulation during spoken word recognition. Oral presentation at the *Mental Lexicon 2016* Conference. University of Ottawa, Ottawa, ON. October 19-21.

**Desmeules-Trudel, F.**, & Zamuner, T. S. (2016). Processing ambiguous vowel nasalization in Canadian French: Reaction times and eye movements. Oral presentation at the *MOLT Phonology Workshop 2016*, Carleton University, Ottawa, ON. March 18-20.

**Desmeules-Trudel, F.** (2015). The aerodynamics of vowel nasality and nasalization in Brazilian Portuguese. Oral presentation at the *ICPhS XIII*, Glasgow, Scotland. August 11-14.

**Desmeules-Trudel, F.** (2013). Perception of Quebec French nasal vowels by Brazilian learners: Acoustic and perceptual factors. Oral presentation at the *37th Meeting of the APLA*, University of Moncton, Moncton, NB. November 1-2.

**Desmeules-Trudel, F.**, & Paradis, C. (2012). La non-importance de l'aspiration phonétique de l'anglais dans les emprunts en thaï [The unimportance of English phonetic aspiration in Thai loanwords]. Oral presentation at the *XVIèmes JDL*, Laval University, Québec City, QC. March 8.

#### **POSTER PRESENTATIONS**

**Desmeules-Trudel, F.**, & Joanisse, M. F. (2020). Training confusable sounds in an L2 benefits word learning after sleep-related memory consolidation. Poster presentation at the *LabPhon 17* Conference, University of British Columbia, Vancouver, BC. July 5-8.

Zamuner, T. S., **Desmeules-Trudel, F.**, Bernard, A., & Johnson, E. (2020). Toddlers recognize native-accented words faster than nonnative-accented words: A timecourse analysis of eye movements during

spoken word recognition. Poster presentation at the *LabPhon 17* Conference, University of British Columbia, Vancouver, BC. July 5-8.

**Desmeules-Trudel, F.**, Bernard, A., Johnson, E, & Zamuner, T. S. (2020). The timecourse of toddlers' recognition for native-accented vs. non-native-accented speech. Poster presentation at the *CLA Annual Conference*, Western University, London, ON. May 30- June 1.

**Desmeules-Trudel, F.** (2020). Different use of fine-grained phonetic cues for word recognition in an L1 and an L2. Poster presentation at the *Berkeley Linguistic Society Workshop: Phonological Representations*, University of California Berkeley, Berkeley, CA. February 7-8.

**Desmeules-Trudel, F.**, & Joanisse, M. (2019). Speech-sound assimilation for second-language learning and memory consolidation of newly-learned words. Poster presentation at the *PsyLinCS UTM* workshop, University of Toronto Mississauga, Mississauga, ON. September 7.

**Desmeules-Trudel, F.**, & Zamuner, T. S. (2018). Comparing bilingual and monolingual toddlers' sensitivity to coarticulation during spoken word recognition. Poster presentation at the *XXI Biennal ICIS*, Philadelphia, PA. June 30 - July 3.

**Desmeules-Trudel, F.**, & Zamuner, T. S. (2018). The use of phonetic variability for word recognition depends on stimulus ambiguity. Poster presentation at the *LabPhon 16* Conference, University of Lisbon, Lisbon, Portugal. June 19-22.

**Desmeules-Trudel, F.**, & Zamuner, T. S. (2017). Categorical patterns, phonetic integration and within-category variability in the recognition of spoken words in a second language. Poster presentation at the *AMP 2017*, New York University, New York City, NY. September 15-17.

Pilin, M., **Desmeules-Trudel, F.**, Piché, É., & Zamuner, T. S. (2017). Children use coarticulation cues during spoken word recognition. Poster presentation at the *CLA Annual Conference*, Ryerson University, Toronto, ON. May 27-29.

**Desmeules-Trudel, F.**, & Zamuner, T. S. (2016). Processing of coarticulatory nasalized vowels and phonological nasal vowels in Canadian French. Poster presentation at the *LabPhon 15* Conference, Cornell University, Ithaca, NY. July 13-16.

**Desmeules-Trudel, F.** (2016). Real-time processing at the phonetics-phonology interface: L1 and L2 perception of Canadian French nasalization. Poster presentation at the *EMLAR Workshop XII*, Utrecht University, Utrecht, The Netherlands. April 20.

**Desmeules-Trudel, F.** (2015). Propriétés aérodynamiques des voyelles nasales et potentiellement nasalisées en français québécois [Aerodynamic properties of Quebecois French nasal and potentially nasalized vowels]. Poster presentation at the *CLA Annual Conference*, University of Ottawa, Ottawa, ON. May 30.

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## PRESENTATIONS AS INVITED SPEAKER

**Desmeules-Trudel, F.** (2020). Linguistic and cognitive factors that impact new-word learning in a second language. Oral presentation at the *Linguistics Talks at Western*, Western University, London, ON. April 20.

\*\*\*Cancelled due to COVID-19 pandemic

**Desmeules-Trudel, F.** (2020). A developmental perspective on the interactions between speech sounds and new words for second language learning and processing. Oral presentation at the *Perception, Cognition, and Language Group Chat*, University of Toronto Mississauga, Mississauga, ON. March 20.

\*\*\*Cancelled due to COVID-19 pandemic

**Desmeules-Trudel, F.** (2020). Modéliser la dynamique du langage : Outils expérimentaux, statistiques et computationnels [Modeling language dynamics: Experimental, statistical and computational tools]. Invited lecture at the *Department of French*, University of Toronto, ON. March 2.

**Desmeules-Trudel, F.** (2019). Phonetics and speech-recognition technology. Invited lecture for *CCT202 Human Perception and Communication* (Dr. Rhonda McEwen), University of Toronto Mississauga, Mississauga, ON. October 3.

**Desmeules-Trudel, F.** (2019). The phonetics-phonology interface: Historical sound change, phonetic implementation and word recognition. Invited lecture at the *Department of Languages, Literatures & Linguistics*, York University, Toronto, ON. March 22.

**Desmeules-Trudel, F.** (2017). The phonetics-phonology interface: Spoken word recognition and vowel nasalization in L1 Canadian French. Invited lecture for *LIN3320 Phonological Theory* (Dr. Kevin McMullin), University of Ottawa, Ottawa, ON. November 13.

**Desmeules-Trudel, F.** (2017). Coarticulation, contrast and spoken word recognition in a second language: Eye tracking and event-related potentials. Oral presentation at the *Sound Learning Group meeting*, Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen, Nijmegen, Netherlands. May 10.

**Desmeules-Trudel, F.** (2016). R Workshop (part 1, Basic components; part 2, Graphing and statistics). Workshop at the Linguistics Department, University of Ottawa, Ottawa, ON. February 5 & February 12.

**Desmeules-Trudel, F.** (2013). Phonetic similarity of Quebec French and Brazilian Portuguese nasal vowels: Dispersion measures and vowel inherent spectral change (VISC). Oral presentation at the *Reunião do Grupo de Estudos Fonéticos (GEF)*, University of São Paulo, São Paulo, Brazil. March 22.

**Desmeules-Trudel, F.** (2013). Variabilité individuelle pour la production des voyelles nasales en français québécois en en portugais brésilien et implications pour la perception L2 [Individual variability in the production of Quebecois French and Brazilian Portuguese nasal vowels and implications for L2 perception]. Oral presentation at the *Midi-rencontre du Département de langues, linguistique et traduction*, Laval University, Québec City, QC. February 1.

**Desmeules-Trudel, F.** (2012). Phonetics for teaching, and teaching phonetics: Perception and acquisition of Québec French by Brazilian learners. Invited lecture for *ANG2500 General and Contrastive Phonetics* (Dr. Andrée Lepage), Laval University, Québec City, QC. November 30.

FUNDING AND AWARDS  competitive awards denoted with *		
2020-2021	*Postdoctoral fellowship University of Toronto Mississauga	± \$42K CAD
2019-2020	*BrainsCAN salary top-up and Research allowance Western University, Canada First Research Excellence Fund	± \$26K CAD
2018-2020	*Postdoctoral fellowship Québec Research Funds – Society and Culture	\$90K CAD
2015-2018	*Joseph-Armand Bombardier Canada Graduate Scholarship Social Sciences and Humanities Research Council of Canada	\$105K CAD
2013-2015	*Ph.D. Scholarship Québec Research Funds – Society and Culture Funded for three years, used \$40K CAD over two years, favouring	\$60K CAD
2013-2018	*Excellence Scholarship University of Ottawa	\$35K CAD
2013-2018	*Admission Scholarship (tuition) University of Ottawa	± \$50K CAD
2018	Dean of Arts Bursary University of Ottawa	\$1.5K CAD
2017	*Michael Smith Supplement for Foreign Study Social Sciences and Humanities Research Council of Canada Purpose: Research internship at the Donders Institute in Nijmege	\$6K CAD
2017	Student mobility bursary University of Ottawa Purpose: Research internship at the Donders Institute in Nijmege	\$4K CAD
2013	Research Internship Université Laval Purpose: Research internship at the University of São Paulo	\$3K CAD

Total competitive funding obtained: ± \$414K CAD

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#### RESEARCH EXPERIENCE

2016 **Research assistant** winter semester

Department of Linguistics – University of Ottawa
→ Linguistics Laboratories (SPL, CCLR, ERPLing)

2013-2014 **Research assistant** fall & winter semesters

Department of Linguistics - University of Ottawa & Royal Canadian Mounted Police

→ Voice identification project

2013-2014 **Research assistant** fall & winter semesters

Department of Linguistics – University of Ottawa

→ Centre for Child Language Research

2012 **Research assistant** summer semester

Department of Languages, Linguistics and Translation – Université Laval

→ Speech motor control in Parkinson's-affected patients

2010-2011 **Research assistant** various semesters

Department of Languages, Linguistics and Translation – Université Laval

→ CoPho Project

#### TEACHING EXPERIENCE

Student supervision

2019-... Undergraduate

→ Alyssa Yantsis, B.Sc. in Medical Sciences (with Dr. Marc Joanisse)

*Independent Research Project – Western University* 

Courses taught

2017 Department of Linguistics – University of Ottawa

→ LIN3725 Phonétique intermédiaire Intermediate Phonetics

2015 Department of Linguistics – University of Ottawa

→ LIN3750 Psycholinguistique Psycholinguistics

2012 Department of Languages, Linguistics and Translation – Université Laval

→ LNG1002 Notions fondamentales de phonétique et de phonologie Fundamental notions in phonetics and phonology

## Teaching assistantships

# 2014-2018 **Department of Linguistics – University of Ottawa**

- → LIN2355 Second Language Acquisition (Dr. Laura Sabourin)
- → LIN4735 Physiologie de la parole (Dr. Ian MacKay) Speech physiology
- → LIN1720 Les sons du langage (Dr. Kathleen Brannen) Sounds of language
- → LIN4726 Acoustique de la parole (Dr. Marc Brunelle) Speech acoustics

# 2011-2012 Language School – Université Laval

→ French as a L2 program (Québec Ministry of Immigration)

# 2010-2011 Department of Languages, Linguistics and Translation – Université Laval

- → LNG2000 Phonologie I (Dr. Carole Paradis) *Phonology I*
- → LNG3100 Phonologie II (Dr. Carole Paradis) Phonology II

#### **EXTRACURRICULAR TRAINING**

## 2017 Research intern

Donders Institute for Brain, Cognition and Behavior – Radboud University Nijmegen

# 2016 **Participant – EMLAR XII**

Utrecht Institute of Linguistics OTS – Utrecht University

## 2014 Participant – STEP @ CCP

Centre for Comparative Psycholinguistics – University of Alberta

## 2013 Research intern

Department of Linguistics – University of São Paulo

### **SERVICE ACTIVITIES**

### 2019-... **Member**

Committee on Inclusion and Diversity, Canadian Linguistics Association

## 2015-2018 **Volunteer**

uOttawa Living Lab, Canadian Science and Technology Museum

# 2016 Presenter @ Open House – Studying Linguistics

Department of Linguistics – University of Ottawa

# 2016 Member of the organizing committee – Psychoshorts 2016

Department of Linguistics – University of Ottawa

# 2013-2015 Invited Speakers Committee member

Department of Linguistics – University of Ottawa

# PAPER, CONFERENCE AND SCHOLARSHIP REVIEWING

Language and Speech; LabPhon17; Second Language Research; Journal of the Acoustical Society of America; Western Postdoctoral Research Fellowship competition; International Congress of Phonetic Sciences 2019; Mind, Brain, and Education (with Dr. Tania Zamuner); Official Languages and Bilingualism Institute Working Papers – uOttawa; Psychoshorts 2016; Canadian Journal of Linguistics; Applied Psycholinguistics (with Dr. Tania Zamuner); XXVIèmes Journées de linguistique – ULaval

LANGUAGES: French (native), English (near-native), Portuguese (intermediate)

**CITIZENSHIP:** Canadian

Updated: July 5th, 2020

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