

CURRICULUM VITAE

Amy S. Desroches

Northwestern University
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CURRENT POSITION

Postdoctoral Research Associate Northwestern University
NSERC Postdoctoral Fellow *Sponsor:* Dr. James R. Booth

ACADEMIC TRAINING

Ph.D., Psychology, 2008 The University of Western Ontario
M.A., Psychology, 2004 The University of Western Ontario
B.A., Psychology, 2002 The University of Western Ontario
(*Honours*)

OPERATING GRANTS

2010 – 2011 *Title:* Neural Correlates of Phonological Deficits in Chinese Children with Dyslexia
Funding Source: Beijing Normal University

PUBLICATIONS

Desroches, A.S., Cone, N.E., Bolger, D.J., Bitan, T., Burman, D.D., & Booth, J.R. (In Press). Children with reading difficulties show differences in brain regions associated with orthographic processing during spoken language processing. *Brain Research*.

Prado, J., Mutreja, R., Zhang, H., Mehta, R., **Desroches, A.S.**, Minas, J.E., & Booth, J.R. (In Press). Distinct representations of subtraction and multiplication in the neural systems for numerosity and language. *Human Brain Mapping*.

Desroches, A.S. & Joanisse, M.F. (2009). Dyslexia. B. Goldstein (Ed.). *Encyclopedia of Perception*.

Desroches, A.S., Newman, R.L., & Joanisse, M.F. (2009). Investigating the time course of spoken word recognition: Electrophysiological evidence for the influence of phonological similarity. *Journal of Cognitive Neuroscience*, 21(10), 1893-1906.

Robertson, E.K., Joanisse, M.F., **Desroches, A.S.**, & Ng, S. (2009). Categorical speech perception deficits distinguish language and reading impairments in children. *Developmental Science*, 12(5), 753-767.

Minda, J.P., **Desroches, A.S.**, & Church, B.E. (2008). Learning rule-described and non-rule-described categories: A comparison of children and adults. *Journal of Experimental Psychology: Learning, Memory and Cognition*, 34(6), 1518-1533.

Desroches, A.S., Joanisse, M.F., & Robertson, E.K. (2006). Specific phonological impairments in dyslexia revealed by eyetracking, *Cognition*, 100(3), B32-B42.

Papers Submitted:

Desroches, A.S., Newman, R.L., Robertson, E.K., & Joanisse, M.F. Electrophysiological indices of phonological processing deficits in dyslexia. Under Review, March 2010 to *Journal of Child Psychology and Psychiatry*.

Papers in Preparation:

- Desroches, A.S.** & Joanisse, M.F. Dynamical vs. end-state measures reveal imprecise representations in dyslexia.
- Desroches, A.S.**, Morson, E.M., Newman, R.L., Joanisse, M.J., & Booth, J.R. Behavioral and electrophysiological markers of reading skill in typical development.
- Desroches, A.S.**, Malins, J.G., Robertson, E.K., Newman, R.L., & Joanisse, M.F. Electrophysiological evidence for the temporal dynamics of phonological processing in specific language impairment [SLI].
- Desroches, A.S.**, Morson, E.M., & Booth, J.R. Word reading in the brain: A combined fMRI and ERP study.
- Desroches, A.S.**, Vira, A. Newman, R.L., Joanisse, M.J., & Booth, J.R. Functional connectivity in the language network during reading: Influences of skill, age, and task.

CONFERENCE PRESENTATIONS

- Desroches, A.S.**, Minas, J.E., McNorgan, C.P., & Booth, J.R. (June, 2010). Auditory word and nonword rhyming in children: Influences of phonological and orthographic similarity. Poster, *Organization for Human Brain Mapping*, Barcelona, Spain.
- McNorgan, C.P., **Desroches, A.S.**, Minas, J.E., & Booth, J.R. (June, 2010). The lexicality effect in cross-modal language processing in children depends on orthographic and phonological similarity. Poster, *OHBM*.
- Minas, J.E., **Desroches, A.S.**, McNorgan, C.P., Bolger, D.J., & Booth, J.R. (June, 2010). Developmental divergence in brain networks for phonological processing of words and nonwords. Poster, *OHBM*.
- Prado, J., Mutreja, R., Zhang, H., Mehta, R., **Desroches, A.S.**, Minas, J.E., & Booth, J.R. (June, 2010). Distinct representations of subtraction and multiplication in the neural systems for numerosity and language. Poster, *OHBM*, Barcelona, Spain.
- Desroches, A.S.**, Joanisse, M.F., Newman, R.L., Morson, E.M. & Booth, J.R. (June, 2009). ERPs reveal the temporal dynamics of phonological processing in typical development. Poster, *OHBM*, San Francisco, CA.
- Desroches, A.S.**, Joanisse, M.F., Cone, N.E., & Booth, J.R. (May, 2009). Identifying neural markers of language processing deficits in dyslexia. Talk, *Canadian Association for Neuroscience*, Vancouver, BC.
- Desroches, A.S.**, Robertson, E.K., Malins, J.G., Newman, R.L., Archibald, L.M.D., & Joanisse, M.F. (April, 2009). ERPs reveal the temporal dynamics of phonological processing deficits in language impairment. Poster, *Society for Research in Child Development*, Denver, CO.
- Desroches, A.S.** & Joanisse, M.F. (November, 2008). Eyetracking reveals subtle deficits in categorical speech perception in children with dyslexia. Poster, *Psychonomic Society*, Chicago, IL.
- Desroches, A.S.**, Neilson, S., & Joanisse, M.F. (June, 2008). Revealing differences in speech perception across typical development: Categorical versus gradient effects in perception. Poster, *Canadian Society for Brain and Behavioural Sciences*, London, ON.
- Desroches, A.S.**, Newman, R.L., Robertson, E.K., & Joanisse, M.F. (May, 2007). Phonological mechanisms of spoken word recognition in children and adults. Poster, *Cognitive Neuroscience Society*, New York, NY.
- Newman, R.L., **Desroches, A.S.**, & Joanisse, M.F. (May, 2007). Examining implicit phonological processing using a picture-word matching task and fMRI. Poster, *CNS*, New York, NY.
- Joanisse, M.F., Newman, R.L., & **Desroches, A.S.** (May, 2007). Temporal and frontal brain regions implicated in dyslexic children's auditory word processing deficits – An fMRI study. Poster, *CNS*, New York, NY.
- Joanisse, M.F., Robertson, E.K., & **Desroches, A.S.** (May, 2007). Phonological and speech processing deficits in developmental dyslexia and specific language impairment. Talk, Georgetown University; Washington, DC.
- Desroches, A.S.**, Newman, R.L., Robertson, E.K., & Joanisse, M.F. (March, 2007). Auditory phonological processing in typically developing and reading impaired children. Poster, *SRCD*, Boston, MA.

- Robertson, E.K., Newman, R.L., **Desroches, A.S.**, & Joanisse, M.F. (March, 2007). Speech perception deficits in children with language and reading impairment: An event-related potential study. Poster, *SRCD*, Boston.
- Desroches, A.S.** & Minda, J.P. (November, 2006). Category learning in children and adults: Can kids learn to follow the rules? Paper, *PS*, Houston, TX.
- Desroches, A.S.**, Newman, R.L., & Joanisse, M.F. (November, 2005). Investigating the time course of spoken word recognition: Evidence from event-related potentials [ERPs]. Paper, *PS*, Toronto, ON.
- Robertson, E.K., Joanisse, M.F., **Desroches, A.S.**, Ng, S.L., & Terry, A. (June, 2005). Similarities and differences between developmental dyslexia and specific language impairment. Poster, *Society for the Scientific Study of Reading*, Toronto, ON.
- Desroches, A.S.**, Joanisse, M.F., & Robertson, E.K. (April 2005). Eyetracking reveals perceptual deficits in dyslexia are specific to phonology. Poster, *SRCD*, Atlanta, GA.
- Robertson, E.K., Joanisse, M.F., **Desroches, A.S.**, Ng, S., & Terry, A. (April, 2005). Do children with dyslexia also have Specific Language Impairment? Poster, *SRCD*, Atlanta, GA.
- Robertson, E.K., Joanisse, M.F., **Desroches, A.S.**, & Ng, S. (November, 2004). The role of phonology and working memory in auditory sentence comprehension: Evidence from children with SLI and dyslexia. Paper, *PS*, Minneapolis, MN.
- Desroches, A.S.**, Joanisse, M.F., & Robertson, E.K. (June, 2004). Eyetracking measures of phonological impairment in children with dyslexia. Poster, *Canadian Language & Literacy Research Network*, Montreal, QB.
- Robertson, E.K., Joanisse, M.F., **Desroches, A.S.**, & Ng, S. (June, 2004). Do children with dyslexia also have specific language impairment? Poster, *CLLRNet*, Montreal, QB.
- Desroches, A.S.**, Joanisse, M.F., & Robertson, E.K. (June, 2003). Specific phonological impairments in dyslexia revealed by eye-tracking. Paper, *CSBBCS*, Hamilton, ON.
- Robertson, E.K., Joanisse, M.F., Terry, A., **Desroches, A.S.** (June, 2003). Overlapping deficits in dyslexia and SLI: Phonological awareness, past tense morphology, and sentence comprehension. *CSBBCS*, Hamilton, ON.
- Joanisse, M.F., **Desroches, A.S.**, & Robertson, E.K. (November, 2002). Atypical auditory word recognition in dyslexic children: Evidence from eye movements. Poster, *PS*, Kansas City, MO.
- Joanisse, M.F., **Desroches, A.S.**, & Robertson, E.K. (September, 2002). Atypical word recognition in children with dyslexia: Eye movement evidence. *Architectures & Mechanisms for Language Processing*, Tenerife, Spain.

MAJOR SCHOLARSHIPS AND AWARDS

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|-------------|---|
| 2009 – 2011 | Natural Sciences & Engineering Research Council Postdoctoral Fellowship |
| 2008 – 2010 | NSERC – Industrial Research & Development Fellowship |
| 2006 – 2008 | NSERC – Canada Graduate Scholarship |
| 2006 – 2007 | Ontario Graduate Scholarship |
| 2005 – 2007 | Scottish Rite Charitable Foundation Graduate Student Award |
| 2003 – 2005 | Ontario Graduate Scholarship in Science and Technology |

OTHER AWARDS AND HONOURS

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| 2007 | Travel Award – Canadian Language and Literacy Research Network |
| 2006 | Travel Stipend – John Merck Summer Institute on the Neurobiology of Developmental Disabilities |
| 2005 – 2006 | Western Graduate Research Scholarship |
| 2005 – 2006 | Northern Ontario Grant Assistance Program, Continuing Education Grant |

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| 2004 | Developmental Disabilities Division Research Award |
| 2002 – 2003 | Special University Scholarship, UWO |
| 2002 | NSERC Undergraduate Summer Research Award |
| 2002 | Clark and Mary J. Wright Scholarship, UWO Department of Psychology |
| 2002 | Dean's Honour Roll, Faculty of Social Science, UWO |

CURRENT PROFESSIONAL ORGANIZATIONS AND SOCIETIES

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|----------------|--------------------------------------|
| 2009 – present | Organization for Human Brain Mapping |
| 2009 – present | Psychonomic Society |

RELEVANT EXPERIENCE

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|----------------|---|
| 2009 – present | Ad hoc Reviewer, <i>Clinical Neurophysiology, Journal of Speech Language & Hearing Research</i> |
| 2009 – present | Postdoctoral Research Associate, Northwestern University |
| 2007 | Canadian Language & Literacy Research Network (Student Co-Chair) |
| 2006 | Attendee, Merck Institute on the Neurobiology of Developmental Disabilities |
| 2005 – 2007 | Academic Counsellor, UWO Psychology Department |
| 2005 – 2007 | Canadian Language & Literacy Research Network (Student Executive Committee) |
| 2004 – 2007 | Invited Speaker, Rotary Club, Nipigon, ON |
| 2003 – 2008 | UWO Psychology Departmental Committee Student Representative |
| 2002 – 2006 | Teaching Assistant, Department of Psychology, UWO Research Methods and Statistics (two terms) Sensation and Perception (one term) Cognitive Psychology, Mind and Brain (two terms) Advanced Research Methods in Psycholinguistics (two terms) |
| 2000 – 2006 | Tutor, Ranging from Elementary to Undergraduate |
| 1999 – 2002 | Classroom Assistant, Volunteer, London Catholic District School Board |
| 1999 – 2001 | Classroom Assistant, Summer Student, Superior Greenstone Board of Education |