

CURRICULUM VITAE

Aneta Kielar, Ph.D.
Rotman Research Institute
Baycrest Hospital
3560 Bathurst Street
Toronto, Ontario, M6A 2E1, Canada

Phone: (416)-556-7453

email: akielar@research.baycrest.org

EDUCATION

- **Ph.D. University of Western Ontario** 2008
Academic Area: Cognition & Perception
Supervisor: Dr. Marc F. Joanisse
- **M.A. University of Western Ontario** 2003
Academic Area: Cognitive Psychology
Supervisor: Dr. Marc F. Joanisse
- **B.Sc. Honors, University of Toronto:** 2000
Academic Areas: Psychology and Biological Sciences
Supervisor: Dr. Konstantine Zakzanis

ACADEMIC POSITIONS

- *Postdoctoral Fellow:* Rotman Research Institute, Baycrest Hospital 2011-2015
- *Research Associate:* Aphasia and Neurolinguistics Research Laboratory 2010-2011
School of Communication Sciences and Disorders, Northwestern University
- *Postdoctoral Fellow:* Aphasia and Neurolinguistics Research Laboratory 2008-2010
School of Communication Sciences and Disorders, Northwestern University
- *Lecturer:* Introduction to Cognition, University of Western Ontario 2007

PEER REVIEWED ARTICLES

Published Articles

Kielar, A., Panamsky, L., & Meltzer, J. A. (2015). Localization of electrophysiological responses to semantic and syntactic anomalies in language comprehension with MEG. *Neuroimage, 105*, 507-524.

Kielar, A., Meltzer, J. A., Moreno, Alain, C., & Bialystok, E. (2014). Oscillatory responses to semantic and syntactic violations. *Journal of Cognitive Neuroscience*, 26, 2840-2862.

Kielar, A., Meltzer-Assher, A., & Thompson, C. K. (2012). Electrophysiological responses to argument structure violations in healthy adults and individuals with agrammatic aphasia. *Neuropsychologia*, 50(14), 3320-3337.

Kielar, A., & Joanisse, M. F. (2011). The role of semantic and phonological factors in word recognition: An ERP cross-modal priming study of derivational morphology. *Neuropsychologia*, 49(2), 161-177.

Kielar, A., Fix, S. C., Bonakdarpour, B., & Thompson, C.K. (2010). Neural correlates of covert and overt production of tense and agreement morphology: Evidence from fMRI. *Journal of Neurolinguistics*, 24(2), 183-201.

Kielar, A., & Joanisse, M. F. (2010). Graded effects of regularity in language revealed by N400 indices of morphological priming. *Journal of Cognitive Neuroscience*, 22(7), 1373-1398.

Kielar, A., Joanisse, M. F., & Hare, M. L. (2008). Priming English past tense verbs: Rules or statistics? *Journal of Memory and Language*, 58(2), 327-346.

Abel, S. M., Sass-Kortsak, A., & **Kielar, A.** (2002). The effects on earmuff attenuation and other safety gear worn in combination. *Noise and Health*, 5(17), 1-13.

Abel, S. M., Sass-Kortsak, A., & **Kielar, A.** (2001). The effects of safety gear worn in combination and hearing loss on earmuff attenuation and speech understanding. *Canadian Acoustics*, 29(3), 50-51.

Zakzanis K. K., **Kielar A.,** Young D. A., & Boulos, M. (2001). Neuropsychological differentiation of late onset schizophrenia and fronto-temporal dementia. *Cognitive Neuropsychiatry*, 6(1), 63-77.

PUBLISHED CONFERENCE PROCEEDINGS

Kielar, A., Deschamps, T., Chu, R.K.O, Panamsky, L., Khatamian, Y.B., Chen, J.J., and Meltzer, J. A. Stroke induced reorganization of the neural networks for sentence comprehension, and relationship to perilesional dysfunction revealed by MEG and ASL. (2014). *Frontiers 52nd Annual Meeting of Academy of Aphasia*.

Meltzer-Asscher, A., **Kielar, A.,** Mack, J., Weintraub, S., Mesulam, M. M., & Thompson, C. K. (2012). Electrophysiological Responses to Semantic and Argument Structure Violations in Agrammatic Primary Progressive Aphasia. *Procedia - Social and Behavioral Science*, 61, 266-268.

Kielar, A., Meltzer-Assher, A., & Thompson, C. K. (2012). Electrophysiological responses to argument structure violations in healthy adults and individuals with nonfluent aphasia. *The Aphasiology Archive University Library System*, University of Pittsburgh.

Kielar, A., Meltzer-Assher, A., & Thompson, C. K. (2011). ERP responses to argument structure and semantic violations in sentence context in healthy and agrammatic aphasic adults. *Procedia - Social and Behavioral Sciences*, 23, 45-46.

Kielar, A., & Orange, J. B. Processing of nouns and verbs in Dementia of Alzheimer's Type (DAT) (2007). *Proceedings of the Festival of International Conferences on Caregiving, Disability, Aging and Technology: Advances in NeuroRehabilitation (FICCDAT)*.

BOOK CHAPTERS

Thompson, C. K., **Kielar, A.,** & Fix, S. F. (2012). Morphological aspects of agrammatic aphasia. In R. Bastiaanse & C. K. Thompson (Eds.), *Perspectives on Agrammatism*, pp 75-105. Sussex, UK: Psychology Press.

Thompson, C. K., & **Kielar, A.** (2014). Neural Bases of Sentence Processing: Evidence from Neurolinguistic and Neuroimaging Studies, In V. Ferreira, M. Goldrick, & M. Miozzo (Eds.), *The Oxford Handbook of Language Production*. Oxford University Press.

CONFERENCE PRESENTATIONS

Oral Presentations

Kielar, A. Supporting Stroke Recovery: Localization of neural networks for sentence processing in healthy adults and stroke participants. *Seniors Health Knowledge Network Making Connections Webinar Series, Toronto, Canada, January 9, 2014.*

Oppermann, F., **Kielar, A.,** Panamsky, L., & Meltzer, J. Alpha and beta power decrease as a neural correlates of semantic and phonological processing in a language task. *Psychonomics Society Annual Meeting, Toronto, Canada, November 14-17, 2013.*

Kielar, A., Panamsky, L., & Meltzer, J. Localization of neural networks for sentence processing using Magnetoencephalography. *ORC and OLTC Applied Research Education Day, Toronto, Canada, February, 13-14, 2013.*

Kielar, A. Neural Correlates of language recovery in aphasia: An fMRI study of treatment related effects. *OLTC Applied Research Education Day, Toronto, Canada, November 23, 2011*

Kielar, A., Fix, S. C., Bonakdarpour, B., Parrish, T. B., & Thompson, C. K. Neural correlates of treatment-induced functional category recovery: An fMRI study of tense and agreement production. *14th International Aphasia Rehabilitation Conference, Montreal, June, 2010.*

Kielar, A., Joanisse, M. F., Hare, M. L., & Seidenberg, M. S. Past tense priming: Rules and exceptions or phonology and semantics? *The 45th Psychonomic Society Annual Meeting, Minneapolis, MIN, November, 2004.*

Joanisse, M. F., **Kielar, A.**, Hare, M. L., & Seidenberg, M. S. The brain bases of regular, irregular and pseudo-regular morphology: Evidence from priming and functional MRI experiments of past tense in English. *AMLAP Conference, Aix en Provence, France 2004.*

Kielar, A. Neuropsychological differentiation of late life schizophrenia and fronto-temporal dementia. *Paper presented at 30th Psychology Undergraduate Thesis Conference, April 28, 2000, University of Guelph.*

Poster Presentations

Kielar, A., Deschamps, T., Chu, R., Panamsky, L., Khatamian, Y. B., Chen, J. J., & Meltzer, J. A. Stroke induced reorganization of the neural networks for sentence comprehension, and relationship to perilesional dysfunction revealed by MEG and ASL. *52nd Meeting of Academy of Aphasia, Miami, FL, USA, October 5-7, 2014.*

Kielar, A., Deschamps, T., Chu, R., Panamsky, L., Khatamian, Y. B., Chen, J. J., & Meltzer, J. A. Functional reorganization of the neural networks for language after stroke and relationship to perilesional dysfunction revealed by MEG. *Advances in Stroke Recovery Meeting, Ottawa, Ontario, June 9-10th, 2014.*

Meltzer JA, **Kielar A**, Rose NS, Panamsky L, Leigh RC, Links KA (2014). MEG activity for phonological and semantic resources in verbal short-term memory. *19th International Conference on Biomagnetism, Halifax, NS, Canada, August 24-28th, 2014.*

Kielar, A., Meltzer, J. A., Moreno, S., Alain, C., & Bialystok, E. Oscillatory responses to sentence embedded semantic and syntactic violations: Effect of bilingualism. *8th Annual Canadian Association for Neuroscience Meeting, Montreal, Quebec, May 25-28th, 2014.*

Kielar, A., Panamsky, L., & Meltzer, J. Brain networks for semantic and syntactic processing: Converging evidence from MEG and DTI. *7th Annual Canadian Association for Neuroscience Meeting, Toronto, Ontario, Canada, May 23rd, 2013.*

Kielar, A., Panamsky, L., & Meltzer, J. Localization of neural networks for semantic and syntactic processing using MEG. *20th Annual Cognitive Neuroscience Meeting, San Francisco, CA, USA, April 15th, 2013.*

Kielar, A., Panamsky, L., & Meltzer, J. Mapping brain networks for semantic and syntactic processing using MEG in healthy and damaged brains. *23rd Annual Neuroscience Conference: Brain Plasticity and Rehabilitation, Toronto, Canada, March 4-6, 2013.*

Kielar, A., Panamsky, L., Links, K., & Meltzer, J. Mapping of neural generators of electrophysiological responses to semantic and syntactic anomalies using MEG. *18th International Conference on Biomagnetism, Paris, France, August, 2012.*

Kielar, A., Meltzer-Asscher, A., Mack, J., Weintraub, S., Mesulam, M. M., & Thompson, C.K. Electrophysiological responses to semantic and argument structure violations in agrammatic Primary Progressive Aphasia. *50th Annual Meeting of Academy of Aphasia, San Francisco, CA, October, 2012*

Kielar, A., Meltzer-Asscher, A., & Cynthia K. Thompson, C. K. Electrophysiological responses to argument structure violations in healthy adults and individuals with nonfluent Aphasia. *The 42nd Clinical Aphasiology Conference, Lake Tahoe, California, May, 2012.*

Kielar, A., Mack, J., Meltzer-Asscher, A., Wali, E., & Thompson, C. K. Neuronal Interactions for Words and Pseudowords during Lexical Decision. *The 19th Cognitive Neuroscience Society Meeting, Chicago, April, 2012.*

Schuchard, J., **Kielar, A.,** Barbieri, E., Thompson, C.K. Neural Correlates of Unaccusative and unergative verb processing. *The 19th Cognitive Neuroscience Society Meeting, Chicago, April, 2012.*

Kielar, A., Mack, J., Meltzer-Asscher, A., Wali, E., & Cynthia K. Thompson, C. K. Neuronal Interactions for Words and Pseudowords during Lexical Decision: DCM model of lexical processing. *Society for the Neurobiology of Language, Annapolis, MD, USA, November, 2011.*

Schuchard, J., **Kielar, A.,** Barbieri, E., & Thompson, C.K. Neural correlates of unaccusative and unergative verb processing. *Society for the Neurobiology of Language, November, Annapolis, MD, USA, November, 2011*

Kielar, A., Meltzer-Asscher, A., & Thompson, C. K. ERP Responses to Argument Structure and Semantic Violations in Sentence Context in Healthy and Agrammatic Aphasic Adults. *49th Annual Meeting of the Academy of Aphasia, Montreal, Quebec, October, 2011.*

Kielar, A., & Thompson, C. K. ERP Investigation of Argument Structure and Semantic Processing in Healthy and Aphasic Adults. *17th Annual Meeting of the Organization for Human Brain Mapping, Quebec, Canada, 2011.*

Kielar, A., & Thompson, C. K. Electrophysiological investigation of argument structure processing in healthy and agrammatic aphasic adults. *2nd Annual Neurobiology of Language Conference, San Diego, November, 2010.*

Kielar, A., Fix, S. C., Bonakdarpour, B., Parrish, T. B., & Thompson, C. K. Neural Correlates of Functional Category Recovery in Aphasia: An fMRI Study of Verb Inflection Production. *16th Annual Meeting of the Organization for Human Brain Mapping, Barcelona, Spain, 2010.*

Kielar, A., Fix, S. C., Bonakdarpour, B., Parrish, T. B., & Thompson, C. K. Neural correlates of functional category learning and recovery: An fMRI study of verb inflection production. *47th Annual Meeting of Academy of Aphasia, Boston, USA, November, 2009.*

Kielar, A., Fix, S.C., Bonakdarpour, B., Parrish, T. B., & Thompson, C. K. Neural correlates of verb inflection production: fMRI study of tense and agreement morphology. *Annual Neurobiology of Language Conference, Chicago, November, 2009.*

Kielar, A., Stephen C. Fix, Bonakdarpour, B., Parrish, T. B., & Thompson, C. K. Neural correlates of verb production: fMRI study of tense and agreement morphology. *15th Annual Meeting of the Organization for Human Brain Mapping, San Francisco, June, 2009.*

Kielar, A., & Orange, J. B. Processing of nouns and verbs by individuals with Dementia of Alzheimer's Type. *The Festival of International Conferences on Caregiving, Disability, Aging and Technology: Advances in NeuroRehabilitation (FICCDAT), June, 2007.*

Kielar, A., & Orange, J. B. Processing of nouns and verbs by individuals with Dementia of Alzheimer's Type. *The Canadian Institute of Health Research Symposium, February, 2007.*

Kielar, A., Joanisse, M. F., & Newman, R. L. Neural processing of rule like and irregular patterns in language: An fMRI study of past tense priming. *The Cognitive Neuroscience Society Meeting, New York, May, 2007.*

Kielar, A., Joanisse, M. F., & Newman, R. L. How does the brain processes complex words? ERP cross-modal priming study of derivational morphology. *The Cognitive Neuroscience Society Meeting, San Francisco, April, 2006.*

Kielar, A., & Joanisse, M. F. Individual differences in working memory and sentence comprehension under load. *The 44th Psychonomic Society Annual Meeting, Vancouver, B.C., Canada, November, 2003.*

Kielar, A., & Joanisse, M. F. Individual differences in working memory and sentence comprehension. *The Canadian Society for Brain, Behaviour and Cognitive Sciences, Hamilton, Ontario, 2003.*

Abel, S. M., Sass-Kortsak, A., & **Kielar A.** The effects of safety gear worn in combination and hearing loss on earmuff attenuation and speech understanding. *The Annual Meeting of the Canadian Acoustical Association, Alliston, Ontario, October, 2001.*

RESEARCH POSITIONS

- *Research Assistant*, Samuel Lunenfeld Research Institute, 2000-2001
Mount Sinai Hospital, Toronto
Laboratory of Dr. Sharon M. Abel
- *Research Assistant*, Baycrest Centre for Geriatric Care 2000-2001

CLINICAL EXPERIENCE

- Department of Speech and Language Pathology, 1999-2000
The Riverdale Hospital, Toronto.

HONOURS THESIS

- Schizophrenia and Fronto-temporal Dementia: Differential Test Sensitivity: 1999-2000
University of Toronto, Laboratory of Dr. Konstantine K. Zakzanis

TEACHING EXPERIENCE

- Tracking neuro-physiological changes using MEG/EEG, 2013
hands-on analysis workshop
Rotman Research Institute, Baycrest Hospital
- Neuroimaging Methods and Analysis Workshop in SPM, *Instructor* 2010-2011
Northwestern University
- Disorders of Language Representation and Processing, *Guest lecture* 2010
Northwestern University
- Cognitive Neuroscience of Event Related Potentials, 2008
Laboratory Instructor, University of Western Ontario
- Introduction to Cognition, *Instructor* 2007
University of Western Ontario
- Introduction to Test & Measurement, *Teaching Assistant* 2006-2007
University of Western Ontario
- Research Methods and Statistical Analysis in Psychology 2005-2006
Teaching Assistant, University of Western Ontario

-
- Research in Psycholinguistics, *Teaching Assistant* 2004-2005
University of Western Ontario
 - Introduction to Psycholinguistics, *Teaching Assistant* 2003-2004
University of Western Ontario
 - Statistics for Psychology, *Teaching Assistant* 2002-2003
University of Western Ontario
 - Introduction to Psychology, *Teaching Assistant* 2001-2002
University of Western Ontario

STUDENT SUPERVISION

- Graduate Laboratory Rotation Advisor 2010
Interdepartmental Neuroscience Program, *Northwestern University*
Title: “Using EEG to Investigate Language Processing in Healthy Adults and Aphasic patients”
- Graduate Laboratory Rotation co-supervisor, *Northwestern University* 2011
School of Communication Sciences and Disorders
- Graduate Independent Study co-supervisor, *Northwestern University* 2010-2011
School of Communication Sciences and Disorders
Title: “Default-mode network in individuals with aphasia”
- Psychology Honours Thesis co-supervisor, University of Western Ontario 2004-2005
Title: “An ERP Investigation of Processing and Representation of English Past Tense”

SCHOLARSHIPS AND AWARDS

- Ontario Research Coalition Early Researcher Award: \$2,750 2012-2013
- Ontario Research Coalition Early Researcher Award: \$3,385 2011-2012
- Western Graduate Research Scholarship: \$5,000 2007
- Alzheimer’s Society Graduate Research Award: \$11,500 2006-2007
- Ontario Graduate Scholarship (OGS): \$15,000 2006-2007

-
- Western Graduate Research Scholarship: \$1,000 2006
 - Natural Science and Engineering Research Council of Canada (NSERC: PGS-B) Scholarship: \$38,000 2004-2006
 - Graduate Tuition Scholarship, The University of Western Ontario: \$6,000 2004-2005
 - Ontario Graduate Scholarship for Science and Technology (OGSST): \$15,000 2003-2004
 - Special University Scholarship, The University of Western Ontario: \$5,000 2002-2003
 - Ontario Graduate Scholarship (OGS): \$ 15,000 2001-2002
 - University of Toronto Fourth Year Honours List 2000
 - University of Toronto, Third Year Honours List 1999
 - The University of Toronto Women's Association Lois Dove Memorial Scholarship: \$1,000 1999
 - Ontario Scholar Award 1995

OTHER PUBLICATIONS

Kielar A. (2008). Representation of Language in the Brain: Behavioural and imaging investigations of English past tense morphology. Dissertation Abstracts International: Section B: The Sciences and Engineering, Vol 69(5-B), 2008. pp. 3289. [Doctoral Dissertation, The University of Western Ontario]

Kielar A. (2003). Working memory and sentence comprehension in adult listeners under stress as a function of memory span and syntactic complexity. [M.A. Thesis, University of Western Ontario]

NON-REFEREED REPORTS

Abel, S. M., Sass-Kortsak, A. and **Kielar A.** (2001). "Hearing Protectors, safety glasses and respiratory protective equipment in combination: Effect on sound attenuation." Final Report (Operating Grant #980003), *Workplace Safety & Insurance Board*.

REVIEWER FOR JOURNAL ARTICLES

Ad-hoc reviewer, *NeuroImage*, 2014

Ad-hoc reviewer, *Neuropsychologia*, 2009

Ad-hoc reviewer, *Cognition*, 2010

REVIEWER FOR GRANT PROPOSALS

Rotman Research Institute Internal Review Committee, December 2012

Postdoctoral Fellowship to Alzheimer's Society of Canada

Proposal Title: “*The Vascular and Metabolic Impact of Type 2 Diabetes on Brain Function*”

Rotman Research Institute Internal Review Committee, November 2012

Research Grant, Alzheimer's Society of Canada,

Proposal Title: “*Improving Communication and Quality of Life in Dementia*”

Rotman Research Institute Internal Review Committee, CIHR Grant, February 2013

Proposal Title: “*Improving Functional Outcomes for People with Progressive Aphasia*”

ADMINISTRATIVE ACTIVITIES

Rotman Research Rounds Coordinator, 2013-2014

Rotman Research Institute, Baycrest Hospital, Toronto, Ontario

SCIENTIFIC MEMBERSHIPS

Cognitive Neuroscience Society, since 2006

Organization for Human Brain Mapping, since 2009

Canadian Association for Neuroscience, since 2012

Canadian Partnership for Stroke Recovery, since 2013

The Psychonomic Society, since 2014

Academy of Aphasia, 2014