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A. Academic History:

1. BSc, Honours in Biology & Psychology, *Summa Cum Laude*, McMaster University, 2000-2004
2. PhD, Psychology, Neuroscience & Behaviour, McMaster University, 2005-2009
 - Dissertation: Familiarity modifies early perceptual face processing as revealed by event-related potentials (Chair: J.M. Shedden)

B. Professional Position:

1. Postdoctoral fellow, Rotman Research Institute, Baycrest Centre, 2010-present

C. Grants, Scholarships & Honours:

1. Catherall Award for Research, Jack and Rita Catherall CANADA, \$500, 05/2010-03/2011
2. Research Scholarship, Department of Psychology, Neuroscience & Behaviour, McMaster University, \$10,000, 09/2009-09/2010
3. Canada Graduate Scholarship Doctorate, NSERC, \$105,000, 09/2006-09/2009
4. Research Travel Award, Department of Psychology, Neuroscience & Behaviour, McMaster University, \$1,500, 2005-2008
5. Canada Graduate Scholarship Master's, NSERC, \$17,500, 09/2005-09/2006
6. Ontario Graduate Scholarship Master's, Ministry of Ontario, \$15,000, 09/2005-09/2006
7. Abe Black Memorial Award for Best Undergraduate Thesis, \$500, McMaster University, 09/2004
8. Academic Honours Award, McMaster University, \$1000, 09/2000

D. Membership in Professional Associations:

1. Canadian Society for Brain, Behaviour and Cognitive Science
2. Cognitive Neuroscience Society
3. Organization for Human Brain Mapping
4. Society for Neuroscience
5. Vision Science Society

E. Professional Activities:

1. Internal grant review committee member, Rotman Research Institute (2010-present)
2. Ad-hoc reviewer:
 - 2.1. Archives Italiennes de Biologie
 - 2.2. Brain and Cognition
 - 2.3. Experimental Brain Research
 - 2.4. Journal of Comparative Psychology
 - 2.5. Journal of Cognitive Psychology
 - 2.6. Journal of Cognitive Neuroscience
 - 2.7. The Quarterly Journal of Experimental Psychology

2.8. Visual Cognition

3. Research Assistant, Psychology Department, McMaster University (2004-2005)
4. Statistics Tutor, McMaster University (2003-2004)

F. Publications:Articles published or accepted in refereed journals:

1. **Heisz, J.J.**, Shedden, J.M., and McIntosh, A.R. (in press). Relating brain signal variability to knowledge representation. *NeuroImage*.
2. **Heisz, J.J.**, and McIntosh, A.R. (in press). Applications of EEG neuroimaging data: Event-related potentials, spectral power, and multiscale entropy. *Journal of Visualized Experiments*.
3. **Heisz, J.J.**, and Ryan, J.D. (2011). The effects of prior exposure on face processing in younger and older adults. *Frontiers in Aging Neuroscience*. 3:15. doi: 10.3389/fnagi.2011.00015
4. **Heisz, J.J.**, Hannah, S., Shedden, J.M., and Allan, L.G. (2011). Neural temporal dynamics of contingency judgment. *Quarterly Journal of Experimental Psychology*, 64, 792-806.
5. Watter, S., **Heisz, J.J.**, Karle, J.W., Shedden, J.M., and Kiss, I. (2010). Modality-specific control processes in verbal versus spatial working memory. *Brain Research*, 1347: 90-103.
6. **Heisz, J.J.**, and Shedden, J.M. (2009). Semantic learning modifies perceptual face processing. *Journal of Cognitive Neuroscience*. 21: 1127-1134.
7. Brunet, P.M., **Heisz, J.J.**^{*}, Mondloch, C.J., Shore, D.I., and Schmidt, L.A. (2009). Shyness and face scanning in children. *Journal of Anxiety Disorders*, 23: 909-914.
8. **Heisz, J.J.**, and Shore, D.I. (2008). More efficient scanning for familiar faces. *Journal of Vision*. 8(1), 1-10.
9. Kiss, I., Watter, S., **Heisz, J.J.**, and Shedden, J.M. (2007). Control processes in verbal working memory: An event-related potential study. *Brain Research*, 1172: 67-81.
10. **Heisz, J.J.**, Watter, S., and Shedden, J.M. (2006). Automatic face identity encoding at the N170. *Vision Research*, 46: 4604-4614.
11. **Heisz, J.J.**, Watter, S., and Shedden, J.M. (2006). Progressive N170 habituation to unattended repeated faces. *Vision Research*, 46: 47-56.

^{*}*Co-first author*

Articles submitted to refereed journals:

1. **Heisz, J.J.**, Pottruff, M.M., and Shore, D.I. Females scan more than males: A potential mechanism for sex differences in face memory. *Revise Resubmit*.
2. **Heisz, J.J.**, Levine, B., Ross, B., and McIntosh, A.R. Brain signal variability in autobiographical memory and rest: A MEG study. *Revise Resubmit*.
3. Fenesi, B., **Heisz, J.J.**, Savage, P., Shore, D.I., Kim, J.A. The role of verbal redundancy, images and misperceptions on learning in an educational context. *Revise Resubmit*.
4. Cheal, J., **Heisz, J.J.**, Walsh, J.A., Shedden, J., and Rutherford, M.D. The brain basis of emotional aftereffects: An ERP study. *Revise Resubmit*.

Manuscripts in prep:

1. **Heisz, J.J.**, Vandermorris, S., Zhengbo, W., McIntosh, A.R., and Ryan, J.D. The effect of physical exercise on recognition memory and eye movements.
2. **Heisz, J.J.**, Gould, M., and McIntosh, A.R. The effect of regular physical exercise on directed forgetting across the lifespan older adults.
3. **Heisz, J.J.**, and Shedden, J.M. ERP evidence for semantic retrieval associated with familiar faces and incongruous parts
4. **Heisz, J.J.**, and Shedden, J.M. Sex differences in social cognition: Attentional biases in face processing.
5. McConnell, M.M., **Heisz, J.J.**, Shedden, J.M., and Shore, D.I. Females detect trustworthy gaze, but males do not.

Published or Accepted Book Chapters:

1. **Heisz, J.J.**, and Pottruff, M. (in press). Attention and Memory, In J.A. Kim (Ed.), *Discover Psychology* (pp. 124-153). Toronto: Nelson Education Ltd.
2. **Heisz, J.J.** (2010). Person learning. In D.I. Shore (Ed.), *Multisensory Mind* (pp.1-38). Hamilton: McMaster University Press. Also contracted for publication by Oxford University Press.

Other Refereed Contributions:

1. **Heisz, J.J.**,* Levine, B., Ross, B., and McIntosh, A.R. (2012). Brain signal variability in autobiographical memory and rest: An MEG study. Cognitive Neuroscience Society (International conference, poster)
2. Walsh, J.A., Cheal, J., **Heisz, J.J.**, Shedden, J., and Rutherford, M.D. (2012). The brain basis of emotional aftereffects: An ERP study. Vision Sciences Society Annual Meeting. (International conference, poster).
3. Fenesi, B., **Heisz, J.J.**, Savage, P., Shore, D.I., and Kim, J.A. (2011). Text and image use in multimedia instruction. Integrative Research in teaching and technology, McMaster University, Hamilton, Canada (National conference, presentation).
4. Fenesi, B., **Heisz, J.J.**, Savage, P., Shore, D.I., and Kim, J.A. (2011). Effective use of text and images in multimedia instruction. Fourth International Ubiquitous Learning Conference, Berkeley California, United States (International conference, presentation).
5. **Heisz, J.J.**,* Shedden, J.M., and McIntosh, A.R. (2011). Relating brain signal variability to the unfolding of human memory processing. Organization for Human Brain Mapping (International conference, poster)
6. **Heisz, J.J.**,* and Ryan, J.D. (2011). Memory supports face processing across the lifespan. Cognitive Neuroscience Society (International conference, poster)
7. **Heisz, J.J.**,* Shedden, J.M., and McIntosh, A.R. (2010). Neural network dynamics of person learning. Society for Neuroscience (International conference, poster)
8. **Heisz, J.J.**,* Shedden, J.M., and McIntosh, A.R. (2010). Person learning modifies neural network dynamics. Organization for Human Brain Mapping (International conference, poster)
9. LeBarr, A.N., **Heisz, J.J.** and Shedden, J.M. (2010). Self-relevant semantic learning does not alter physical face perception. Canadian Society of Brain, Behaviour, and Cognitive Psychology (National conference, poster).
10. Fenesi, B., Kim, J., and **Heisz, J. J.** (2010). Multimedia instruction and cognitive load. 4th Annual International Women's Day Conference (National conference, oral)
11. **Heisz, J.J.***, and Shedden, J.M. (2008). Holistic face representation is required for some but not all face processing: Evidence from event-related potentials. Vision Science Society (International conference, poster). Also presented at the 2nd Annual International Women's Day Conference (National conference, oral).
12. **Heisz, J.J.***, and Shedden, J.M. (2008). Testing our reliance on holistic face information. Canadian Society of Brain, Behaviour, and Cognitive Psychology (National conference, oral).
13. **Heisz, J.J.***, Hannah, S., Shedden, J.M., Allan, L.G., and Siegel, S. (2008). Neural markers of contingency judgments. Canadian Society of Brain, Behaviour, and Cognitive Psychology (National conference, poster).
14. **Heisz, J.J.***, and Shore, D.I. (2007). More efficient scanning for familiar faces. Vision Science Society (International conference, poster).
15. **Heisz, J.J.***, and Shedden, J.M. (2007). The N170 repetition effect reflects perceptual identity processing of unfamiliar faces. Canadian Society of Brain, Behaviour, and Cognitive Psychology (National conference, oral).
16. **Heisz, J.J.***, and Shedden, J.M. (2006). Face recognition is facilitated by gender-specific semantic information. Canadian Society of Brain, Behaviour, and Cognitive Psychology (National conference, oral).
17. **Heisz, J.J.***, and Shedden, J.M. (2005). Automatic face identity encoding occurs early in face processing. Canadian Society of Brain, Behaviour, and Cognitive Psychology (National conference, oral; Undergraduate work)

18. Kiss, I., **Heisz, J.J.***, Watter, S., and Shedden, J.M. (2005). ERP dissociation of maintenance versus manipulation processes in working memory. Canadian Society of Brain, Behaviour, and Cognitive Psychology (National conference, poster).
 19. Shedden, J.M., Milliken, B., Garcia, K., **Heisz, J.J.**, and Watter, S. (2005). ERP analysis of brain correlates and time course of the item-specific proportion congruent (ISPC) effect in global/local processing. Canadian Society of Brain, Behaviour, and Cognitive Psychology (National conference, poster).
 20. Watter, S., Shedden, J.M., and **Heisz, J.J.** (2005). Lateralized readiness potential evidence for parallel response selection in dual tasks. Psychonomics Society (International conference, poster).
- *Presenting author*

Non-refereed Contributions:

1. **Heisz, J.J.** & Bernman, M. (2012). Bernman on the brain: This is your brain on art. Huffington Post. http://www.huffingtonpost.ca/marc-berman/arts-brain_b_1840347.html

H. Presentations as an Invited Speaker:

1. **Heisz, J.J.** (2013). Step into a healthier brain: The cognitive neuroscience of exercise. To be given at Discover Psychology Public Lecture.
2. **Heisz, J.J.** (2012). Exercise changes the brain's rhythms and helps older adults forget irrelevant information. EEG Seminar Series, Rotman Research Institute.
3. **Heisz, J.J.** (2012). Remember this: there's signal in the noise. Ontario College of Art and Design University.
4. **Heisz, J.J.** (2011). Relating brain signal 'noise' to the unfolding of human memory processes. Rotman Rounds. Baycrest and Toronto Western Hospital.
5. **Heisz, J.J.** (2010). How does the brain represent knowledge? Rotman Rounds. Baycrest.
6. **Heisz, J.J.** (2008). Attention accounts for sex difference in face processing. McMaster University Cognition Seminars.
7. **Heisz, J.J.** (2007). Who are you? Person learning modifies face processing. McMaster University Cognition Seminars.
8. **Heisz, J.J.** (2005). N170 habituation effect: Indexing automatic acquisition of face familiarity. McMaster University Cognition Seminars and University of Victoria Cognitive Seminars. Talk.

I. Teaching and Supervisory Experience

Teaching Assistant:

1. Statistics & Research Methods (2008)
2. Cognition (2005-2006, 2009)
3. Infancy Development (2006)
4. Animal Behaviour (2006)
5. Sensory & Perception Lab (2007)
6. Human Experimental Lab (2007)

Graduate students supervision:

1. Fenesi, B., Eye-tracking as a measure of attention in an educational context, 2010-present
2. Pottruff, M., Sex differences in eye movement measures, 2010-present

Undergraduate students supervision:

1. Gould, M., Age-related changes in multiscale entropy, 2011-2012
2. Wu, J., Age-related changes in face scanning, 2011-2012
3. Klaus, A., Attentional biases account for own-sex effects in face recognition, 2009-2010
4. LeBarr, A.N., Self-relevant semantic learning can bias physical face perception, 2008-2009
5. Kirkham, B., Neural processes of contingency judgment, 2008-2009
6. Gupta, N., N170 repetition effect to faces learned with related information, 2007-2008
7. Chu, L., No N170 repetition effect to faces learned without information, 2007-2008

8. Harvey, E., Attention explains sex differences in face processing, 2006-2007
9. Tran, A., A lack of N170 habituation effect to non-face objects, 2006-2007
10. Pierre, K., A lack of N170 habituation effect to non-face objects, 2006-2007
11. Linde, M., Own-race bias: a literature review, 2005-2006