

# Jonathan J. Marotta, PhD

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**DATE OF BIRTH:** November 3, 1969

**NATIONALITY:** Canadian

## **EDUCATION:**

Ph.D.	(Neuroscience)	The University of Western Ontario, London, Ontario	1998
M.Sc.	(Neuroscience)	The University of Western Ontario	1994
B.Sc.H.	(Psychology)	Queen's University, Kingston, Ontario	1992

## **PROFESSIONAL EXPERIENCE:**

Associate Professor	Department of Psychology, University of Manitoba	2007-pres.
Associate Scientist	Thunder Bay Regional Research Institute (TBRRI)	2012-pres.
Research Affiliate	Riverview Health Centre, Winnipeg, MB	2006-pres.
Research Affiliate	Centre on Aging at The University of Manitoba	2005-pres.
Associate Member	Heart and Stroke Foundation Centre for Stroke Recovery (HSFCSR)	2004-pres.
Guest Worker	National Research Council – Institute for Biodiagnostics	2007-2013
Assistant Professor	Department of Psychology, University of Manitoba Centre for Vision Research, York University, Toronto, ON	2004-2007
Senior Research Fellow	Research, York University, Toronto, ON	2002-2004
Postdoctoral Research Associate	Center for the Neural Basis of Cognition, Carnegie Mellon University, Pittsburgh, PA	1998-2001

## **SCHOLARLY AND PROFESSIONAL ACTIVITIES:**

Grant Peer Review:	Heart and Stroke Foundation of Canada (HSFC)	2011
	• Member of Research Fellowship Committee	
	Natural Sciences and Engineering Research Council of Canada (NSERC)	2005-11
	• Discovery Grant	
	Natural Sciences and Engineering Research Council of Canada (NSERC)	2009
	• E.W.R. Steacie Memorial Fellowship	
	Canadian Institutes of Health Research (CIHR)	2006-09
	• Member of Behavioural Science C Grants Committee	
	Heart and Stroke Foundation of Canada (HSF)	2005, 08-09
	• Grant-in-aid	
	Alberta Heritage Foundation for Medical Research Independent Establishment Grant	2006
	Nova Scotia Health Research Foundation	2006
	• Health Research Project Grant	
	Health Research Council of New Zealand International Investment Opportunities Fund	2004
Editorial Consultant:	Experimental Brain Research, Journal of Cognitive Neuroscience, PLoS One, Neuropsychologia, Frontiers in Neuroscience, Journal of Neurophysiology, Journal of Neuroscience, Journal of Neuroscience Methods, Psyche, Cortex, Journal of Experimental Psychology: Human Perception & Performance, European Journal of Neuroscience, British Journal of Psychology, Brain Research, The Quarterly Journal of Experimental Psychology, and Child Development.	

Learned Societies:	Vision Sciences Society, Cognitive Neuroscience Society, Society for Neuroscience, Canadian Society for Brain Behaviour and Cognitive Science, The Organization for Human Brain Mapping	
Institutional:	Canada Foundation for Innovation (CFI) Mentor	2012
	Brain and Cognitive Science (BCS) Search Committee Member	2011
	Canada Research Chair (CRC) Search Committee Member	2008
	CIHR Research Advisory Group (CRAG) to the Office of the Vice-President (Research) at the University of Manitoba.	2009-pres.
	Faculty of ARTS Research Committee	2009-11
	Area Coordinator (Brain and Cognitive Sciences)	2007-09
	Executive Committee	2007-09
	University Faculty Award (UFA) Search Committee Member	2006
Community:	Sanofi-Aventis Biotalent Challenge (SABC)	2011
	• Research Mentor	
	Manitoba Schools Science Symposium	2010
	• Research Mentor	
Workshops:	NRC-IBD MR Safety Training	2007
	MGH-NMR fMRI Visiting Fellowship Program	2000
	University of Pittsburgh Medical Center's MR Safety Seminar	1999

#### **INVESTIGATOR-INITIATED RESEARCH GRANTS:**

NSERC	(\$155,000)	2011-2016
<i>Eye-hand coordination: Adding complexity</i>		
Discovery Grant		
Canada Foundation for Innovation & Manitoba Research and Innovations Fund	(\$30,000)	2009-2014
<i>Neuropsychology of Vision: Perception and Action Laboratory.</i>		
Innovation Operating Fund		
Riverview Health Centre	(\$13,322)	2009
<i>Investigation of strategies used in visuomotor adaptation in post-stroke patients.</i>		
2009 Research Competition		
CIHR	(\$10,000)	2009
<i>Preventative Treatment and Management Tools and Applications for Balance and Mobility in Older Adults: Development of Primary and Secondary Care, Outcomes and Registry Containing Knowledge-based Expert System.</i>		
Emerging Team Grant: Alliances in Mobility in Aging – Letter of Intent		
CIHR	(\$10,000)	2008
<i>Interactive and adaptive exercise and educational gaming therapy system for intervention of children with neurodevelopmental disorders.</i>		
Emerging Team Grant: Children with Disabilities (Bright Futures for Kids with Disabilities – Letter of Intent		
University Research Grants Program (URGP)	(\$7,500)	2007-2008
<i>The effects of rotation and inversion on face processing in Alzheimer's Disease.</i>		
CIHR-MHRC RPP	(\$141,840)	2006-2008
<i>Visuomotor processing and sensorimotor integration in the parietal cortex.</i>		
Operating Grant		
Canada Foundation for Innovation & Manitoba Research and Innovations Fund	(\$304,324)	2005
<i>Neuropsychology of Vision: Perception and Action Laboratory.</i>		
New Opportunities Fund		

NSERC <i>The Visual Control of Grasp: Two Interacting Streams.</i> Discovery Grant	(\$102,860)	2005-2011
Manitoba Health Research Council <i>Neuropsychology of Vision: Perception and Action Laboratory.</i> Establishment Grant	(\$100,000)	2005-2008
NSERC <i>Hardware for obtaining grasp kinematics in fMRI.</i> Research Tools and Instruments	(\$18,057)	2005
URGP <i>Hemispacial Neglect: Effects on visual perception and visuomotor control.</i>	(\$7,500)	2005-2006
CIHR <i>Hemispacial Neglect: A multidisciplinary investigation of the effects on visual perception and visually guided action.</i> Senior Research Fellowship Phase II	(\$199,912)	2004-2006
McDonnell-Pew Program in Cognitive Neuroscience <i>How Does Semantic Information About the Function of an Object Affect Grasping?</i>	(\$225,000)	1998-2002

#### **PATENTS AND INTELLECTUAL PROPERTY RIGHTS:**

Provisional Patent #61/084,662 *Viewing Window* paradigm to assess visuomotor functioning.  
An experimental and diagnostic tool for use in identifying conditions that affect parietal lobe and/or visuomotor integration such as: Alzheimer's disease, stroke, Parkinson's, hemispacial neglect, optic ataxia, and natural aging. Differing from other diagnostic tests, this tool requires little verbal instruction and directly assesses a patient's ability to combine visual and motor information. The viewing window provides a quick and informative way of determining performance deficits that are often difficult to detect using standard bedside testing apparatus. Further, the viewing window is a comparatively inexpensive technology, requiring few specialized pieces of equipment.

#### **HONOURS AND AWARDS:**

Outstanding Achievement Award Faculty of Arts, University of Manitoba		2006
Senior Research Fellowship Phase II CIHR		2004-2006
Senior Research Fellowship CIHR Institute of Neurosciences, Mental Health and Addiction		2002-2004
Postdoctoral Fellowship NSERC		1998-2000

#### **PUBLICATIONS:**

##### **Refereed Journals:**

- Meek, B.P., Shelton, P. & **Marotta, J.J.** (Submitted). Posterior Cortical Atrophy: Visuomotor Deficits in Reaching and Grasping. *Frontiers in Neuroscience*. (Invited)
- Meek, B.P., Locheed, K., Lawrence-Dewar, J.M., Shelton, P. & **Marotta, J.J.** (Submitted). Posterior cortical atrophy: The role of simultanagnosia in deficits of face perception. *Frontiers in Neuroscience*. (Invited)
- Szturm, T., Maharjan, P., **Marotta, J.J.**, Shay, B., Shrestha, S. & Sakhalkar, V. (2013). The interacting effect of cognitive and motor task demands on performance of gait, balance and cognition in young adults. *Gait and Posture*, 10.1016/j.gaitpost.2013.02.004.
- Prime, S.L. & **Marotta, J.J.** (2013). Gaze strategies during visually-guided versus memory-guided grasping. *Experimental Brain Research*, 225, 291-305.

- Lawrence-Dewar, J.M., Baugh, L.A. & **Marotta, J.J.** (2012). Behavioural distinction between strategic control and spatial realignment during visuomotor adaptation in a Viewing Window task. *PLoS ONE* 7(11): e48759. doi:10.1371/journal.pone.0048759.
- Baugh, L.A., Lawrence, J.M. & **Marotta, J.J.** (2011). Novel claustrum activation observed during a visuomotor adaptation task using a viewing window paradigm. *Behavioral Brain Research*, 223(2), 395-402.
- Desanghere, L., **Marotta, J.J.** (2011). "Graspability" of objects affect gaze patterns during perception and action tasks. *Experimental Brain Research*, 212(2), 177-187.
- Lawrence, J.M., Abhari, K., Prime, S.L., Meek, B.P., Desanghere, L., Baugh, L.A. & **Marotta, J.J.** (2011). A novel integrative method for analyzing eye and hand behaviour during grasping in an MRI environment. *Behavior Research Methods*, 43(2), 399-408.
- Adduri, C. & **Marotta, J.J.** (2009). Mental rotation of faces in healthy aging and Alzheimer's disease. *PLoS ONE*, 4(7): e6120. doi:10.1371/journal.pone.0006120.
- Baugh, L.A. & **Marotta, J.J.** (2009). When what's left is right: Visuomotor transformations in an aged population. *PLoS ONE*, 4(5): e5484. doi:10.1371/journal.pone.0005484.
- Wilson, K.R., Pearson, P.M., Matheson, H.E. & **Marotta, J.J.** (2008). Temporal integration limits of stereovision in reaching and grasping. *Experimental Brain Research*, 189, 91-98.
- Desanghere, L. & **Marotta, J.J.** (2008). The specificity of learned associations in visuomotor and perceptual processing. *Experimental Brain Research*, 187, 595-601.
- Baugh, L.A. & **Marotta, J.J.** (2007). A new window into the interactions between perception and action. *Journal of Neuroscience Methods*, 160, 128-134.
- Behrmann, M., Avidan, G., **Marotta, J.J.** & Kimchi, R. (2005). Detailed exploration of face-related processing in congenital prosopagnosia: 1. Behavioral findings. *Journal of Cognitive Neuroscience*, 17(7), 1130-1149.
- Behrmann, M., **Marotta, J.J.**, Gauthier, I., Tarr, M.J. & McKeef, T.J. (2005). Behavioral change and its neural correlates in prosopagnosia after expertise training. *Journal of Cognitive Neuroscience*, 17(4), 554-568.
- Marotta, J.J.**, Keith, G.P. & Crawford, J.D. (2005). Task-specific sensorimotor adaptation to reversing prisms. *Journal of Neurophysiology*, 93, 1104-1110.
- Crawford, J.D., Medendorp, W.P. & **Marotta, J.J.** (2004). Spatial transformations for eye-hand coordination. *Journal of Neurophysiology*, 92, 10-19. (Invited)
- Marotta, J.J.** & Behrmann, M. (2004). Patient Schn: Has Goldstein and Gelb's case withstood the test of time? *Neuropsychologia*, 42(5), 633-638. (Invited)
- Marotta, J.J.**, Medendorp, W.P. & Crawford, J.D. (2003). Kinematic rules for upper and lower arm contributions to grasp orientation. *Journal of Neurophysiology*, 90, 3816-3827.
- Marotta, J.J.**, McKeef, T.J. & Behrmann, M. (2003). Hemispatial neglect: its effects on visual perception and visually guided grasping. *Neuropsychologia*, 41(9), 1262-1271.
- Marotta, J.J.**, McKeef, T.J. & Behrmann, M. (2002). The effects of rotation and inversion on face processing in prosopagnosia. *Cognitive Neuropsychology*, 19(1), 31-47.
- Marotta, J.J.**, Genovese, C.R. & Behrmann, M. (2001). A functional MRI study of face recognition in patients with prosopagnosia. *Neuroreport*, 12(8), 1581-1587.
- Marotta, J.J.** & Goodale, M.A. (2001). The role of familiar size in the control of grasping. *Journal of Cognitive Neuroscience*, 13(1), 8-17.
- Marotta, J.J.** & Goodale, M.A. (1998). The role of learned pictorial cues in the programming and control of grasping. *Experimental Brain Research*, 121, 465-470.
- Marotta, J.J.**, Kruyer, A. & Goodale, M.A. (1998). The role of head movements in the control of manual prehension. *Experimental Brain Research*, 120, 134-138.

- Marotta, J.J.**, DeSouza, J.F.X., Haffenden, A.M. & Goodale, M.A. (1998). Does a monocularly presented size-contrast illusion influence grip aperture? *Neuropsychologia*, 36(6), 499-504.
- Marotta, J.J.**, Behrmann, M. & Goodale, M.A. (1997). The removal of binocular cues disrupts the calibration of grasping in patients with visual form agnosia. *Experimental Brain Research*, 116, 113-121.
- Marotta, J.J.**, Perrot, T.S., Nicolle, D. & Goodale, M.A. (1995). The development of adaptive head movements following enucleation. *Eye*, 9(3), 333-336.
- Marotta, J.J.**, Perrot, T.S., Nicolle, D., Servos, P. & Goodale, M.A. (1995). Adapting to monocular vision: Grasping with one eye. *Experimental Brain Research*, 104, 107-114.

#### **Refereed Chapters:**

- Baugh, L.A., Desanghere, L. & **Marotta, J.J.** (2010). Agnosia. In G. Koob, M. Le Moal and R.F. Thompson (Eds), *Encyclopedia of Behavioral Neuroscience*, (vol. 1, pp. 27-33). London, UK: Academic Press, Elsevier Science. (Invited)
- Feloui, F.D., **Marotta, J.J.**, Vesia, M., Black, S.E. & Crawford, J.D. (2009). Left-to-right reversal of hemispatial neglect symptoms following adaptation to reversing prisms. In M. Jenkin and L.R. Harris (Eds), *Cortical Mechanisms of Vision* (pp. 35-51). New York, NY: Cambridge University Press. (Invited)
- Marotta, J.J.** & Behrmann, M. (2002). Agnosia. In V.S. Ramachandran (Ed), *Encyclopedia of the human brain* (pp. 59-70). San Diego, CA: Academic Press/Elsevier Science. (Invited)

#### **Refereed Abstracts:**

- Graham, T.J. & **Marotta, J.J.** (2013). Eye-hand coordination: Differential effects of obstacle position on reach trajectories, grasp and gaze locations. *Vision Sciences Society, Journal of Vision*.
- Desanghere, L. & **Marotta, J.J.** (2013). Eye-hand coordination: Differential effects of object shape and surface properties on fixation and grasp locations. *Vision Sciences Society, Journal of Vision*.
- Graham, T.J. & **Marotta, J.J.** (2012). Eye-hand coordination when reaching around an obstacle. *2012 IDeA States Mini-Conference on Visual and Cognitive Neuroscience*, 12.
- Graham, T.J. & **Marotta, J.J.** (2012). Eye-hand coordination when reaching around an obstacle. *Canadian Society for Brain Behaviour, and Cognitive Science*, 33, 9.
- Lawrence, J.M., Baugh, L.A., **Marotta, J.J.** (2011). Behavioural distinction between strategic control and spatial realignment during visuomotor adaptation in a Viewing Window task. *Society for Computers in Psychology*, 34.
- Millikin, C.P., Shelton, P.A. & **Marotta, J.J.** (2011). Progression of neuropsychological impairment over one year in two patients with Posterior Cortical Atrophy. *The Canadian Conference on Dementia*, 26, 150.
- Lawrence, J.M. & **Marotta, J.J.** (2011). Behavioural distinction of strategic control and spatial realignment during a viewing window task. *Canadian Society for Brain and Behaviour, and Cognitive Science*, 5, 25.
- Locheed, K. & **Marotta, J.J.** (2011). Posterior Cortical Atrophy: The role of Simultanagnosia in deficits of face perception. *Canadian Society for Brain and Behaviour, and Cognitive Science*, 6, 25.
- Meek, B.P. & **Marotta, J.J.** (2011). Impaired visuomotor functioning in Posterior Cortical Atrophy. *Canadian Society for Brain and Behaviour, and Cognitive Science*, 15, 27.
- Prime, S.L. & **Marotta, J.J.** (2011). Where do we look when reaching and grasping objects in a memory-delay task? *Canadian Society for Brain and Behaviour, and Cognitive Science*, 36, 31.
- Prime, S.L. & **Marotta, J.J.** (2011). Gaze strategies during visually-guided and memory-guided grasping. *Vision Sciences Society, Journal of Vision*, 11(11), 967.
- Marotta, J.J.** & Locheed, K. (2011). Posterior cortical atrophy: The role of simultanagnosia in deficits of face perception. *Vision Sciences Society, Journal of Vision*, 11(11), 580.

- Lawrence, J.M., Abhari, K., Prime, S.L., Meek, B.P., Desanghere, L., Baugh, L.A. & **Marotta, J.J.** (2010). A novel integrative method for analyzing eye and hand behaviour during grasping in an MRI environment. *Society for Computers in Psychology*, 10.
- Millikin, C., Shelton, P.A., **Marotta, J.J.** (2010). Neuropsychological assessment in two cases of Posterior Cortical Atrophy. *Archives of Clinical Neuropsychology*, 25(6), 476.
- Marotta, J.J.** (2010). Posterior Cortical Atrophy: Insights into perception and action. *Canadian Psychological Association, Canadian Psychology*, 51(2a), 97.
- Meek, B., Desanghere, L., **Marotta, J.J.** (2010). Posterior Cortical Atrophy: An investigation of grasping. *Vision Sciences Society, Journal of Vision*, 10(7), 1087.
- Prime, S.L. & **Marotta, J.J.** (2010). Clarifying the role of gaze cues using biologically natural and unnatural faces. *Vision Sciences Society, Journal of Vision*. 10(7), 232.
- Baugh, L.A., Lawrence, J.M. & **Marotta, J.J.** (2010). Novel insular cortex and claustrum activation observed during a visuomotor adaptation task using a viewing window paradigm. *Vision Sciences Society, Journal of Vision*, 10(7), 896.
- Marotta, J.J.**, Desanghere, L., Meek, B., Baugh, L.A., Lawrence, J., Locheed, K. & Shelton, P.A. (2009). Posterior Cortical Atrophy: The effects on perception and action. *Vision Sciences Society, Journal of Vision*, 9(8), 1095.
- Desanghere, L. & **Marotta, J.J.** (2009). Gaze strategies and grasping: Complex shapes. *Vision Sciences Society, Journal of Vision*, 9(8), 1108.
- Lawrence, J., Baugh, L.A. & **Marotta, J.J.** (2009). A window into behavioural strategies used in visuomotor adaptation. *Vision Sciences Society, Journal of Vision*, 9(8), 1110.
- Desanghere, L. & **Marotta, J.J.** (2008). Gaze strategies while grasping: What are you looking at?! *Vision Sciences Society, Journal of Vision*, 8(6), 299.
- Wilson, K.R., Pearson, P.M., Jakobson, L.S., Bolster, R.B., **Marotta, J.J.** & Sbotto-Frankenstein, U. (2008). Colour and texture processing in human extrastriate cortex: An fMRI study. *Vision Sciences Society, Journal of Vision*, 8(6), 495.
- Marotta, J.J.**, Mraz, R., Black, S.E. & Graham, S.J. (2007). An fMRI investigation of grasping in the elderly and in stroke. *The Organization for Human Brain Mapping (OHBM), Neuroimage*, 36, S51.
- Feloiu, F.D., **Marotta, J.J.**, Vesia, M., Black, S.E. & Crawford, J.D. (2007). Parietal patients and reversing prisms. *Festival of International Conferences on Caregiving, Disability, Aging and Technology (FICCDAT)*, 138, 274.
- Rhode, L. & **Marotta, J.J.** (2006). Learned perceptual associations in perception and action: Differences in specificity. *The Trieste Symposium on Perception and Cognition*, 24, 4.
- Rhode, L., Baugh, L.A., Pearson, P.M., Jakobson, L.S. & **Marotta, J.J.** (2006). Colour-specific deficits in implicit colour working memory: A visuomotor case study. *Vision Sciences Society, Journal of Vision*, 6(6), 132a.
- Feloiu, F.D., **Marotta, J.J.**, Black, S.E. & Crawford, J.D. (2005). Adaptation to reversing prisms: pointing in patients with right-parietal damage. *Vision Sciences Society, Journal of Vision*, 5(8), 120a.
- Marotta, J.J.**, Keith, G.P. & Crawford, J.D. (2004). Is reversing prism adaptation global or modular? *Vision Sciences Society, Journal of Vision*, 4(8), 290a.
- Marotta, J.J.**, Medendorp, W.P. & Crawford, J.D. (2003). The 3-dimensional arm kinematics of grasp orientation. *Society for the Neural Control of Movement*, 13.
- Behrmann, M., Hasson, U., Avidan, G., **Marotta, J.J.**, Harel, M. & Malach, R. (2003). Fusiform face activation in congenital prosopagnosia. *Cognitive Neuroscience Society*, 188.
- Behrmann, M., **Marotta, J.J.**, Harel, M. & Hasson, U. (2002). Activation in fusiform gyrus is not correlated with face recognition: Normal cortical activation with impaired face recognition in congenital prosopagnosia. *Vision Sciences Society, Journal of Vision*, 2(7), 562a.

- Marotta, J.J.**, McKeeff, T.J. & Behrmann, M. (2001). Visual perception and grasping in hemispatial neglect. *Cognitive Neuroscience Society*, 151.
- Marotta, J.J.**, McKeeff, T.J. & Behrmann, M. (2000). The effects of inversion on face processing in prosopagnosia. *Investigative Ophthalmology & Visual Science*, 41(4), 223.
- Marotta, J.J.** & Goodale, M.A. (1999). The influence of familiar size on distance estimates. *Investigative Ophthalmology & Visual Science*, 40(4), 804.
- Marotta, J.J.**, Voyvodic, J.T., Gauthier, I., Tarr, M.J., Thulborn, K.R. & Behrmann, M. (1999). A functional MRI study of face recognition in patients with prosopagnosia. *Cognitive Neuroscience Society*, 83.
- Marotta, J.J.** & Goodale, M.A. (1998). Familiar size: Calibrating a monocularly guided reach. *Investigative Ophthalmology & Visual Science*, 39(4), 1101.
- Marotta, J.J.** & Goodale, M.A. (1997). Elevation in the visual scene: Calibrating a monocularly guided reach. *Investigative Ophthalmology & Visual Science*, 38(4), 988.
- Kruyer, A., **Marotta, J.J.** & Goodale, M.A. (1997). Scene-based binocular cues improve grip trajectory accuracy. *Investigative Ophthalmology & Visual Science*, 38(4), 988.
- Marotta, J.J.**, DeSouza, J.F.X., Haffenden, A.M. & Goodale, M.A. (1996). Does a monocularly presented size-contrast illusion influence grip aperture? *Investigative Ophthalmology & Visual Science*, 37(3), 526.
- Kruyer, A., **Marotta, J.J.** & Goodale, M.A. (1996). Manual grasping in a cue deprived environment. *Investigative Ophthalmology & Visual Science*, 37(3), 526.
- Marotta, J.J.** & Goodale, M.A. (1995). Binocular contribution to size and distance estimation during grasping in a visual agnosic. *Investigative Ophthalmology & Visual Science*, 36(4), 814.
- Marotta, J.J.**, Perrot, T.S., Nicolle, D., Servos, P. & Goodale, M.A. (1994). Adapting to monocular vision: Grasping with one eye. *Investigative Ophthalmology & Visual Science*, 35(4), 2030.

#### **Abstracts:**

- Lawrence-Dewar, J.M., Mackenzie, M., Baugh, L.A. & **Marotta, J.J.** (2012). Decline in visuomotor adaptation behavior in aging and stroke: A Viewing Window Study. Program No. 79.24. 2012 Neuroscience Meeting Planner. New Orleans, LA: *Society for Neuroscience*. Online.
- Szturm, T., Polyzoi, E., Peters, J., Ramanna, S., **Marotta, J.J.**, Yaduvanshi, C. & Ravala, K. (2009). Feasibility and benefits of an innovative educational and exercise telegaming / telemonitoring program for young children with learning and movement disabilities. *The Manitoba Institute of Child Health, 5<sup>th</sup> Annual Child Health Research Day*, 52.
- Baugh, L.A. & **Marotta, J.J.** (2007). Differential effects of aging on a visuomotor paradigm. Program No. 397.16. 2007 Abstract Viewer/Itinerary Planner. San Diego, CA: *Society for Neuroscience*. CD-ROM.
- Adduri, C. & **Marotta, J.J.** (2007). Prosopagnosia in early stages of Alzheimer's disease. Program No. 69.5. 2007 Abstract Viewer/Itinerary Planner. San Diego, CA: *Society for Neuroscience*. CD-ROM.
- Feloiu, F.D., **Marotta, J.J.**, Vesia, M., Black, S.E. & Crawford, J.D. (2007). Visuomotor adaptation to reversing prisms in parietal patients performing a pointing task. *Advances in Neurorehabilitation*, 138, 3.
- Baugh, L.A. & **Marotta, J.J.** (2006). A new window into the interactions between perception and action. Program No. 440.21. 2006 Abstract Viewer/Itinerary Planner. Atlanta, GA: *Society for Neuroscience*. CD-ROM.
- Wilson, K.R., Atkins, M.A., Pearson, P., Timney, B. & **Marotta, J.J.** (2006). Differences in the temporal integration limits of stereovision in perception and action. Program No.440.20. 2006 Abstract Viewer/Itinerary Planner. Atlanta, GA: *Society for Neuroscience*. CD-ROM.
- Adduri, C. & **Marotta, J.J.** (2006). Face recognition and aging. *Canadian Society for Brain and Behaviour, and Cognitive Science*, 54, 9.
- Rhode, L., Baugh, L.A., Pearson, P.M., Jakobson, L.S. & **Marotta, J.J.** (2006). Colour-specific deficits in implicit colour working memory: A visuomotor case study. *Canadian Society for Brain and Behaviour, and Cognitive Science*, 59, 9.

- Wilson, K.R., Pearson, P.M. & **Marotta, J.J.** (2006). Temporal integration limits of stereovision in visually guided grasping. *Canadian Society for Brain and Behaviour, and Cognitive Science*, 104, 10.
- Wilson, K.R. & **Marotta, J.J.** (2006). Temporal integration limits of stereovision in visually guided grasping. *Prairie Undergraduate Research Conference*, 25, 18.
- Adduri, C. & **Marotta, J.J.** (2006). Face recognition and aging. *Canadian Student Health Research Forum*.
- Feloui, F.D., **Marotta, J.J.**, Black, S.E. & Crawford, J.D. (2005). Eye-hand coordination in right parietal-damaged patients performing a reversing prism pointing task. Program No. 287.22. 2005 Abstract Viewer/Itinerary Planner. Washington, DC: *Society for Neuroscience*. CD-ROM.
- Adduri, C. & **Marotta, J.J.** (2005). Does age influence face recognition? *Prairie Undergraduate Research Conference*, 24, 9.
- Marotta, J.J.**, Keith, G.P. & Crawford, J.D. (2004). Visuomotor adaptation to reversing prisms (I): Separate parallel sensorimotor representations for reach and grasp. Program No. 603.3. 2004 Abstract Viewer/Itinerary Planner. San Diego, CA: *Society for Neuroscience*. CD-ROM
- Behrmann, M., **Marotta, J.J.**, Gauthier, I., Tarr, M.J. & McKeeff, T.J. (2003). Neural correlates of behavioral change following Greeble training in prosopagnosia. Program No. 659.4. 2003 Abstract Viewer/Itinerary Planner. New Orleans, LA: *Society for Neuroscience*. CD-ROM.
- Marotta, J.J.**, Medendorp, W.P. & Crawford, J.D. (2002). Contributions of upper and lower arm to grasp orientation. Program No. 268.8. 2002 Abstract Viewer/Itinerary Planner. Orlando, FL: *Society for Neuroscience*. CD-ROM.
- Marotta, J.J.** & Goodale, M.A. (1997). The influence of familiar size on distance estimates. *Vision for Reach and Grasp*. University of Minnesota, 1, 33.
- Marotta, J.J.** & Goodale, M.A. (1997). Restricting head movements hampers reaching under monocular but not binocular viewing conditions. *Society for Neuroscience*, 23, 179.
- Marotta, J.J.** & Goodale, M.A. (1996). Height and distance in the visual field: Calibrating a monocularly guided reach. *Society for Neuroscience*, 22, 885.
- Marotta, J.J.**, DeSouza, J.F.X., Haffenden, A.M. & Goodale, M.A. (1996). A pictorial illusion: The effects of monocular vision on perception and visually guided grasping. *Margaret P. Moffat Graduate Research Day Abstracts*, 1, 34.
- Kruger, A., **Marotta, J.J.** & Goodale, M.A. (1996). Grasping without depth information: A new cue-deprived environment. *Margaret P. Moffat Graduate Research Day Abstracts*, 1, 33.
- Patla, A.E., Goodale, M.A., Rietdyk, S., Adkin, A., Silcher, C. & **Marotta, J.J.** (1995). Role of binocular vision in obstacle avoidance during locomotion. *Society for Neuroscience*, 21, 2083.
- Marotta, J.J.**, Perrot, T.S., Nicolle, D., Servos, P. & Goodale, M.A. (1994). Grasping with one eye. *Southern Ontario Neuroscience Association Abstracts*, 14, 21.
- Perrot, T.S., Goodale, M.A., Burns, P.M. & **Marotta, J.J.** (1994). Reaching and grasping with one eye: The role of movement. *Southern Ontario Neuroscience Association Abstracts*, 14, 24.
- Marotta, J.J.**, Hargreaves, E.H., Ellard, C., Servos, P. & Carey, D.P. (1993). Spontaneous locomotor activity in the MT lesioned gerbil. *Canadian Society for Brain and Behaviour, and Cognitive Science Programme and Abstracts*, 3, 49.

#### **Invited Colloquia:**

- Lawrence-Dewar, J.M., Mackenzie, M., Baugh, L.A. & **Marotta, J.J.** (October, 2012). Decline in visuomotor adaptation behaviour in aging and stroke: A Viewing Window Study. Presented to Occupational Therapy, Riverview Health Centre, Winnipeg, MB, Canada.
- Marotta, J.J.** (March, 2012). Perception and Action: Posterior Cortical Atrophy. Presented at the *Cognitive Neuroscience Minisymposium*, as part of the Society for Neuroscience's (Manitoba Chapter) *Brain Awareness Week 2012*, University of Manitoba, Bannatyne Campus, Winnipeg, MB, Canada.



- Prime, S.L. & **Marotta, J.J.** (March, 2012). Gaze strategies during visually-guided versus memory-guided grasping. Presented at the *Cognitive Neuroscience Minisymposium*, as part of the Society for Neuroscience's (Manitoba Chapter) *Brain Awareness Week 2012*, University of Manitoba, Bannatyne Campus, Winnipeg, MB, Canada.
- Marotta, J.J.** (November, 2010). Insights into perception and action: Agnosia. Presented to the Society for Neuroscience (Manitoba Chapter) as part of the *Manitoba Neuroscience Network Seminar Series* and the University of Manitoba Clinical Neuroscience Rounds, University of Manitoba, Bannatyne Campus, Winnipeg, MB, Canada.
- Baugh, L.A., & **Marotta, J.J.** (May 2009). Utilizing fMRI for Neuropsychological Research: Facts, Fables, and Features. *Rupert's Land Consumer Behaviour Symposium*, University of Manitoba, Winnipeg, MB, Canada.
- Marotta, J.J.** (April, 2008). Vision for perception and action: Interactions. Presented to the Department of Psychology and the Center for Visual Neuroscience, North Dakota State University, Fargo, ND, USA.
- Baugh, L.A. & **Marotta, J.J.** (February, 2008). When what's left is right: Parietal based visuomotor performance in an aged population. Presented to the Sections of Neurology and Neurosurgery, *Neuroscience Grand Rounds*, Health Sciences Centre, University of Manitoba, Bannatyne Campus, Winnipeg, MB, Canada.
- Baugh, L.A. & **Marotta, J.J.** (February, 2008). Visuomotor control in an aged population. Presented to the Spinal Cord Research Centre, Department of Physiology, University of Manitoba, Bannatyne Campus, Winnipeg, MB, Canada.
- Marotta, J.J.** (November 2007). Perception and action: aging, stroke, and neurological impairments. Presented to the National Research Council Institute for Biodiagnostics (NRC-IBD), Winnipeg, MB, Canada. Webcast to NRC-IBD (Atlantic), Halifax, NS, Canada.
- Marotta, J.J.** (October 2007). Perception and action: aging, stroke, and neurological impairments. Presented to Riverview Health Centre, Grand Rounds, Winnipeg, MB, Canada.
- Marotta, J.J.** (October 2007). Perception and action: aging, stroke, and neurological impairments. Presented at the CIHR's Institute of Mental Health Neuroscience and Addiction's Institute Advisory Board (IAB) 28<sup>th</sup> Meeting, Winnipeg, MB, Canada.
- Marotta, J.J.** (August, 2007). Neuropsychology of vision: perception and action. Presented to Occupational Therapy, Riverview Health Centre, Winnipeg, MB, Canada.
- Rhode, L. & **Marotta, J.J.** (May, 2007). Learned perceptual associations in perception and action: Differences in specificity. Presented to the Sections of Neurology and Neurosurgery, Neuroscience Grand Rounds, Health Sciences Centre, University of Manitoba, Winnipeg, MB, Canada.
- Marotta, J.J.** & Adduri, C. (May, 2007). Perception and action: aging, stroke, and Alzheimer's disease. Presented at the *Centre on Aging 24th Annual Spring Research Symposium*, Health Sciences Centre, University of Manitoba, Bannatyne Campus, Winnipeg, MB, Canada.
- Marotta, J.J.** & Adduri, C. (April, 2007). Perception and action: aging, stroke, and Alzheimer's disease. Presented to Centre on Aging, University of Manitoba, Winnipeg, MB, Canada.
- Marotta, J.J.** (June, 2006). Visual and visuomotor malfunctions. Presented to Rehabilitation Services, Inservice Program in Rehabilitation Services, St. Boniface General Hospital, Winnipeg, MB, Canada.
- Marotta, J.J.** (February, 2006). What does a talk on the visual system have to do with motor control? Presented to the Spinal Cord Research Centre, Department of Physiology, University of Manitoba, Bannatyne Campus, Winnipeg, MB, Canada.
- Marotta, J.J.** (January, 2006). Neuropsychology of vision: perception and action. Presented to the Department of Ophthalmology, Ophthalmology Grand Rounds, Misericordia Health Centre, University of Manitoba, Winnipeg, MB, Canada.

- Marotta, J.J.** (September, 2005). Hemispatial Neglect: A multidisciplinary investigation of the effects on visual perception and visually guided action. Presented to the Sections of Neurology and Neurosurgery, Neuroscience Grand Rounds, Health Sciences Centre, University of Manitoba, Bannatyne Campus, Winnipeg, MB, Canada.
- Marotta, J.J.** (October, 2004). Visuomotor adaptation to reversing prisms: Separate parallel sensorimotor representations for reach and grasp. Presented to the Cognitive Psychology Area, University of Manitoba, Winnipeg, MB, Canada.
- Marotta, J.J.** (March, 2004). Vision for perception and action: Neuropsychological investigations. Presented to the Department of Psychology, University of Saskatchewan, Saskatoon, SK, Canada.
- Marotta, J.J.** (March, 2004). Vision for perception and action: Neuropsychological investigations. Presented to the Department of Psychology, University of Manitoba, Winnipeg, MB, Canada.
- Marotta, J.J.** (January, 2004). Vision for perception and action: Neuropsychological investigations. Presented to the Department of Psychology, Atkinson Faculty of Liberal and Professional Studies, York University, Toronto, ON, Canada.
- Marotta, J.J.** (January, 2004). Vision for perception and action: Neuropsychological investigations. Presented to the Department of Psychology at Wayne State University, Detroit, MI, USA.
- Marotta, J.J.** (December, 2003). Hemispatial Neglect: Visual and Visuomotor impairments. Presented to the Centre for Stroke Recovery, Sunnybrook and Women's Health Sciences Centre, Toronto, ON, Canada.
- Marotta, J.J.** (April, 2003). Vision for perception and action: Visual and visuomotor representations. Presented to the Life Science Department at University of Toronto Scarborough Campus, Toronto, ON, Canada.
- Marotta, J.J.** (March, 2003). Vision for perception and action: Visual and visuomotor representations. Presented to the Department of Psychology at York University, Toronto, ON, Canada.
- Marotta, J.J.** (March, 2002). Neuropsychological investigations of the Dorsal and Ventral streams of visual processing. Presented to the Centre for Vision Research at York University, Toronto, ON, Canada.
- Marotta, J.J.** (April, 1999). The visual control of grasping: The role of monocular cues. Presented to the Department of Kinesiology at York University, Toronto, ON, Canada.
- Marotta, J.J.** (September, 1998). The visual control of grasping. Presented to the Center for the Neural Basis of Cognition, Pittsburgh, PA, USA.
- Marotta, J.J.** (April, 1998). The visual control of grasping: The role of monocular cues. Presented to the Department of Psychology, Carnegie Mellon University, Pittsburgh, PA, USA.
- Marotta, J.J.** (February, 1998). The visual control of grasping: The role of monocular cues. Presented to the Center for Magnetic Resonance Research (CMRR), University of Minnesota, Minneapolis, MN, USA.

#### **Oral Presentations at Scientific Meetings:**

- Marotta, J.J.** (June, 2010). Posterior cortical atrophy: Insights into perception and action. *Canadian Psychological Association*, Winnipeg, MB, Canada. (*Refereed*)
- Marotta, J.J., Keith, G.P. & Crawford, J.D.** (October, 2004). Visuomotor adaptation to reversing prisms (I): Separate parallel sensorimotor representations for reach and grasp. *Society for Neuroscience*, San Diego, CA, USA.
- Marotta, J.J. & Goodale, M.A.** (May, 1998). Familiar size: Calibrating a monocularly guided reach. Presented at the annual meeting of the *Association for Research in Vision and Ophthalmology (ARVO)*, Fort Lauderdale, FL, USA. (*Refereed*)
- Marotta, J.J. & Goodale, M.A.** (May, 1995). Binocular contribution to size and distance estimation during grasping in a visual agnostic. Presented at the annual meeting of the *Association for Research in Vision and Ophthalmology (ARVO)*, Fort Lauderdale, FL, USA. (*Refereed*)

**Marotta, J.J.** & Goodale, M.A. (November, 1994). Binocular contribution to size and distance estimation during grasping in a visual agnostic. Presented at the annual meeting of the *Southern Ontario Neuropsychology Group*, University of Guelph, Guelph, ON, Canada. *(Invited)*

**Student Presentations at Scientific Meetings:**

Hauri, B.R., Lawrence, J.M., Marotta, J.J. (2009). Visuomotor adaptation: Developing a visuomotor training paradigm. *University of Manitoba NSERC Poster Competition.*

Baugh, L.A. & **Marotta, J.J.** (2008). Differential effects of aging on a visuomotor paradigm. *Centre on Aging, Spring Research Symposium.*

Meek, B., Rhode, L. & **Marotta, J.J.** (2007). Eye-hand coordination: What're YOU looking at?! *University of Manitoba NSERC Poster Competition.*

Wilson, K.R., Matheson, H., Pearson, P.M. & **Marotta, J.J.** (2006). Differences in the temporal integration limits of stereovision in perception and action. *University of Manitoba NSERC Poster Competition.*

Wilson, K.R., Matheson, H., Pearson, P.M. & **Marotta, J.J.** (2006). Temporal integration limits of stereovision in visually guided grasping. *University of Winnipeg NSERC Poster Competition.*

Rhode, L., Baugh, L.A., Pearson, P.M., Jakobson, L.S. & **Marotta, J.J.** (2006) Colour-Specific Deficits in Implicit Colour Working Memory: A Visuomotor Case Study. *Canadian Student Health Research Forum.*

Adduri, C. & **Marotta, J.J.** (2006). Face Recognition and aging. *Centre on Aging, Spring Research Symposium.*

Adduri, C. & **Marotta, J.J.** (2006). Face recognition and aging. *Winnipeg Chapter of the Society for Neuroscience Brain Awareness Week.*

Adduri, C. & **Marotta, J.J.** (2006). Face recognition and aging. *Centre on Aging, University of Manitoba Graduate Student Research day*