

Matthew Pachai

postdoctoral scientist, educator, critical thinker

work

Laboratory of
Psychophysics
Brain Mind Institute
Ecole Polytechnique
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online

mattpachai@gmail.com
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phone

+41 21 693 1111
Extension 31742

languages

Native English
Basic French

software

MATLAB, R, LaTeX
SPSS, Eyelink,
Microsoft Office

Interests

visual perception, human cognition, psychophysics, peripheral vision, perceptual learning, healthy aging, working memory, visual attention, educational best practices

Education

2009-2015	Ph.D. (advisors: Allison Sekuler & Patrick Bennett) <i>The role of horizontal structure in face identification</i>	McMaster University
2004-2008	B.Sc.Hon. (advisors: Allison Sekuler & Patrick Bennett) <i>Measuring classification images in same/different tasks</i>	McMaster University

Employment

2015-	Postdoctoral Fellow <i>Advisor: Michael H. Herzog</i>	EPFL
2008-2009	Instructional Assistant <i>Introductory Psychology</i>	McMaster University

Awards

2011-2014	NSERC Postgraduate Scholarship - Doctoral	\$21,000/year
2011-2012	Ontario Graduate Scholarship (declined)	\$15,000
2010-2011	Ontario Graduate Scholarship	\$15,000
2009-2010	NSERC Canada Graduate Scholarship - Master's	\$17,500
2009-2010	Ontario Graduate Scholarship (declined)	\$15,000
2008-2008	NSERC Undergraduate Student Research Award	\$6,500

Distinctions

2015	Herb Jenkins Discover Psychology Graduate Scholarship For placing 3rd overall at the McMaster 3-Minute Thesis competition, highest in the Department of Psychology, Neuroscience & Behaviour
2013-2014	VSS Best Poster Award For best poster presentation in session (awarded in two subsequent years)
2010	President's Award for Excellence in Course or Resource Design Awarded to Kim, Pachai, Durrant, Atkinson & McAllister for developing McMaster's Introductory Psychology Program
2008	Burke Memorial Ring For 'outstanding contribution to undergraduate education'

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Teaching

i. Instructor

2013 **Instructor**, Perception Laboratory
Content included experimental design, scientific writing, MATLAB

2009 **Lecture TA**, Introductory Psychology
Delivered two weekly lectures to 100-300 students

ii. Workshop leader

2011-2014 **Taking Effective Study Notes**
Delivered three hour-long lectures per year to an audience of 100-400 incoming undergraduates and their parents

2009-2012 **The University Transition**
Delivered 6-10 hour-long lectures per year to an audience of 50-200 incoming undergraduates and their parents

iii. Teaching assistant

2013 Perspectives in Psychology, Neuroscience & Behaviour

2012 Perception Laboratory

2012 Inferential Statistics

2011 Perception Laboratory

2011 Human Perception and Cognition

2010 General Experimental Psychology Laboratory

2010 Cognitive Neuroscience Laboratory

2007 Senior Teaching Assistant, Introductory Psychology
Coordinated a team of >40 undergraduate teaching assistants

2007 The Big Questions

2006 Introductory Psychology

2006 The Big Questions

Invited Talks

2015 **Departmental Colloquium** McMaster University
Delivered to faculty and graduate students

2015 **Discover Psychology Public Lecture** McMaster University
Delivered to members of the Hamilton and McMaster communities

2015 **PNB 2XD3 Guest Lecture** McMaster University
Delivered to students in PNB 2XD3 on face perception research

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Administrative Responsibilities

i. Departmental

- 2011-2013 **Committee Chair**, Departmental Colloquium Series
- 2011-2013 **Student Representative**, Departmental Faculty Meetings
- 2011-2012 **Organizational Committee**, OE3C conference
- 2011-2012 **Workshop Organizer**, Graduate TA Network
- 2010-2014 **Co-coordinator and MC**, McMaster Local and Canadian National Brain Bees

ii. Institutional

- 2013 **Student Representative**, AVP (Teaching & Learning) Selection Committee
- 2012-2013 **Student Representative**, Senate Committee on Appointments
- 2011-2013 **Student Representative**, Senate Committee on Academic Integrity
- 2012 **Student Representative**, President's Student Experience Task Force
- 2011-2013 **Student Representative**, McMaster University Senate

Publications

i. Peer-reviewed publications

- Pachai, M.V.**, Sekuler, A.B., Bennett, P.J., Schyns, P.G. & Ramon, M. (2017) Personal familiarity enhances sensitivity to horizontal structure during processing of face identity. *Journal of Vision*, 17(6), 1-11.
- Pachai, M.V.**, Doerig, A.C. & Herzog, M.H. (2016) How best to unify crowding? *Current Biology*, 26(9), R352-R353.
- LaPointe, M.R.P., Cullen, R., Baltaretu, B., Campos, M., Michalski, N., Satgunarajah, S.S., Cadieux, M.L., **Pachai, M.V.**, & Shore, D.A. (2016). An attentional bias for Lego people using a change detection task: Are Lego people animate? *The Canadian Journal of Experimental Psychology*, 70(3), 219-231.
- Pachai, M.V.**, DiBattista, D. & Kim, J.A. (2015) The Effect of 'None of the Above' on Multiple-Choice Questions in an Introductory Psychology Classroom. *The Canadian Journal for the Scholarship of Teaching and Learning*, 6(3), 1-14.
- Vida, M.D., Maurer, D., Calder, A.J., Rhodes, G., Walsh, J.A., **Pachai, M.V.**, & Rutherford, M.D. (2013) The Influences of Face Inversion and Facial Expression on Sensitivity to Eye Contact in High-Functioning Adults with Autism Spectrum Disorders. *Journal of Autism and Developmental Disorders*, 43(11), 2536-2548.
- Pachai, M.V.**, Sekuler, A.B., & Bennett, P.J. (2013). Sensitivity to information conveyed by horizontal contours is correlated with face identification accuracy. *Frontiers in Psychology*, 4, 1-9.
- Sana, F., **Pachai, M.V.**, & Kim, J. (2011). Training Undergraduate Teaching Assistants in a Peer Mentor Course. *Transformative Dialogues*, 4(3), 1-10.

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ii. Conference presentations

- Pachai, M.V.**, Roinishvili, M., & Herzog, M.H. (2017). The effect of overall stimulus configuration on crowding. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Hashemi, A., **Pachai, M.V.**, Sekuler, A.B., & Bennett, P.J. (2015). Learning to generalize stimulus-specific learning across contexts. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Pachai, M.V.**, Sekuler, A.B., Bennett, P.J., Schyns, P.G. & Ramon, M. (2016). Personal familiarity enhances sensitivity to horizontal structure during face identification. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Stanley, B.M., Livshin, Z.J., **Pachai, M.V.** & Shore, D.I. (2015). Can increasing eye fixations improve face recognition in males? *Poster presentation at the annual meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science.*
- Pachai, M.V.**, Corrow, S., Bennett, P.J., Barton, J.J.S., & Sekuler, A.B. (2015). Sensitivity to horizontal structure and face identification in developmental prosopagnosia and healthy aging. *Talk presentation at the European Conference on Visual Perception.*
- Pachai, M.V.**, Corrow, S., Bennett, P.J., Barton, J.J.S., & Sekuler, A.B. (2015). Sensitivity to horizontal structure and face identification in developmental prosopagnosia and healthy aging. *Poster presentation at the annual meeting of the Canadian Society for Brain, Behaviour, and Cognitive Science.*
- Pachai, M.V.**, Sekuler, A.B., & Bennett, P.J. (2015). Measuring the flexibility of orientation selectivity in face processing by varying task demands. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Hashemi, A., **Pachai, M.V.**, Sekuler, A.B., & Bennett, P.J. (2015). Stimulus-specificity of training with explicit or ambiguous diagnostic structure. *Talk presentation at the annual meeting of the Vision Sciences Society.*
- Sekuler, A.B., **Pachai, M.V.**, Hashemi, A., & Bennett, P.J. (2015). Effects of size, fixation location, and inversion on face identification. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Cali, J., **Pachai, M.V.**, Sekuler, A.B., & Bennett, P.J. (2015). Phase integration bias predicts performance in a motion binding task. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Pachai, M.V.**, Sekuler, A.B., & Bennett, P.J. (2014). The time course of horizontal tuning during face identification. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Hashemi, A., **Pachai, M.V.**, Bennett, P.J., & Sekuler, A.B. (2014). The N170 is driven by the presence of horizontal facial structure. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Sekuler, A.B., **Pachai, M.V.**, Creighton, S.C., & Bennett, P.J. (2014). Age-related effects on selective processing of horizontal structure in whole-face context. *Poster presentation at the annual meeting of the Vision Sciences Society.*
- Pachai, M.V.**, Sekuler, A.B., & Bennett, P.J. (2013). Masking of individual facial features reveals the use of horizontal structure in the eyes. *Poster presentation at the annual meeting of the Vision Sciences Society.*

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Cullen, R., LaPointe, M.R.P., Baltaretu, B., Campos, M., Michalski, N., Satgunarajah, S.S., Cadieux, M.L., **Pachai, M.V.**, & Shore, D.I. (2013). Lego people are people too: Animacy effects for non-animate objects in a change detection task. *Poster presented at the Canadian Society for Brain, Behaviour, and Cognitive Science.*

Pachai, M.V., Sekuler, A.B., & Bennett, P.J. (2012). Practice with Inverted Faces Selectively Increases the Use of Horizontal Information. *Poster presentation at the annual meeting of the Vision Sciences Society.*

Hashemi, A., **Pachai, M.V.**, Bennett, P.J., & Sekuler, A.B. (2012). Exploring the Relationship Between the N170 Inversion Effect and Horizontal Tuning. *Poster presentation at the annual meeting of the Vision Sciences Society.*

Pachai, M.V., Sekuler, A.B., & Bennett, P.J. (2011). The Use of Horizontal Information Underlies Face Identification Accuracy. *Poster presentation at the annual meeting of the Vision Sciences Society.*

Pachai, M., McAllister, C., & Kim, J.A. (2010). The McMaster IntroPsych Blended Learning Model. *Oral presentation at the annual meeting of the Society for Teaching and Learning in Higher Education.*

Pachai, M.V., Sekuler, A.B., & Bennett, P.J. (2010). The Influence of Horizontal Structure on Face Identification as Measured by Noise Masking. *Poster presentation at the annual meeting of the Vision Sciences Society.*

Dey, A.K., **Pachai, M.V.**, Sekuler, A.B., & Bennett, P.J. (2010). The Effect of Age and Stimulus Duration on Face Identification Accuracy. *Poster presentation at the annual meeting of the Vision Sciences Society.*

Kim, J.A., **Pachai, M.**, & McAllister, C. (2010). IntroPsych Blended Learning Model: creating an enriched learning experience for 5000+ students each year. *Oral presentation at the Learning Technologies Symposium, McMaster University.*

Pachai, M., & Chen, Y. (2009). Evaluating the Use of 'None of the Above' in Multiple Choice Testing. *Oral presentation at Opportunities and New Directions: A Research Conference on Teaching and Learning.*

Kim, J.A., **Pachai, M.**, & McAllister, C. (2009). Can Technology Tame the 3000 Strong Student Body in the Virtual Hall?. *Oral presentation at Opportunities and New Directions: A Research Conference on Teaching and Learning.*

Bennett, P.J., **Pachai, M.**, & Sekuler, A.B. (2008). Classification Images Measured in a Same/Different Face Discrimination Paradigm. *Poster presentation at the annual meeting of the Vision Sciences Society.*