

CURRICULUM VITAE
MICHAEL J. PROULX

Department of Psychology
University of Bath
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United Kingdom

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Academic Positions

Associate Professor (Reader), Department of Psychology, University of Bath, 2016-
Associate Professor (Senior Lecturer), Department of Psychology, University of Bath, 2012-2016
Visiting Associate Professor in Multimedia and Vision, Electronic Engineering and Computer Science, Queen Mary University of London, 2012-
Assistant Professor (Lecturer) in Cognitive Psychology, School of Biological and Chemical Sciences, Queen Mary University of London, 2008-2012
Postdoctoral Fellow in Experimental Biological Psychology, Institute of Experimental Psychology, Heinrich Heine University Düsseldorf, Germany, 2005-2008
NSF Graduate Research Fellow, Department of Psychological and Brain Sciences, Johns Hopkins University, Baltimore, Maryland, 2000-2005
Undergraduate Research Assistant, Department of Psychology, Arizona State University, Tempe, Arizona, 1995-2000

Education

Johns Hopkins University, Baltimore, MD
Ph.D. in Psychological and Brain Sciences, May 2006
M.A. in Psychology, May 2002
Adviser: Dr. Howard Egeth

Arizona State University, Barrett Honors College, Tempe, AZ
B.S. in Psychology with Honors, *summa cum laude*, May 1998

Honors and Awards

Recognising Excellence Award, University of Bath, 2016, £750
Nominee for President-Elect of the Society of Experimental Psychology and Cognitive Science, 2016
Nominee for Director of Perception, Action and Cognition at the National Science Foundation, 2015 (declined)
Fellow, American Psychological Association, Society of Experimental Psychology and Cognitive Science, 2013
Bath Psychology Teacher of the Semester Award, 2013
Arizona State University, Barrett Honors College, "25 Alumni to Watch", 2013
Arizona State University, Barrett Distinguished Alumni Circle inductee, 2013
London 2012 Paralympic Torchbearer

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American Psychological Association Science Showcase Award 2011, \$4,500
Fellow of the Higher Education Academy (FHEA), 2011
Drapers' Award for Excellence in Teaching, 2011, £1,500
APA Society of Experimental Psychology and Cognitive Science New Investigator Award in Human Perception and Performance, 2008
American Psychological Association Dissertation Research Award, 2005
ASU Department of Psychology Outstanding Undergraduate Research Paper Award, 1998
Moeur Award (highest GPA of graduating class at ASU), 1998
Phi Beta Kappa (Junior year), 1997

Grants

Industrial Research Contract (Atkins Global): "Social and spatial cognition in the built environment" (PI), £12,000, 2017
Bath International Research Funding Scheme: "Evaluate and improve neurocognitive ability and academic achievement across five neurocognitive systems" (PI), £12,500, 2017-2018
RSDSA Small Grant: "Pain reduction by inducing sensori-motor adaptation" (Co-I; PI: Janet Bultitude), \$70,000, 2017-2018
Alumni Fund Grant (purchase tactile-vision sensory substitution), £3,900, 2016
Wellcome Trust Biomedical Vacation Scholarship (Host PI for Crescent Jicol), £2,000, 2016
British Council Second City Partnership Travel Grant, £3,000, 2015
Public Engagement Award (for Science Museum festival), £500, 2015
British Academy Small Grant Award (Co-I with Karin Petrini), £10,000, 2015-2016
EPSRC Research Grant (P-I Psychology with Queen Mary and Goldsmiths Computer Science, awarded 6/2012; total £1,100,000), 2012-2015
British Psychological Society Research Seminar Series with UEL and Essex, £3,000, 2014-2015
EPSRC Knowledge Transfer Award, £500, 2014
Arts Council England Grant (Co-I with artist Jane Pitt, Trans:Space project), £1000, 2013-2014
EPSRC Impact Acceleration Award, £5,000 (develop an Android App serious game), 2013
EPSRC Collaborative Fund, (to purchase transcranial electrical stimulator and to host the GW4 Brain Stimulation Workshop), 2013, £9,000
China Scholarship Council PhD Studentship awarded (PI, hosted Jie-Yu Lv), 2012-2015, £39,000
Biological and Chemical Sciences Pump-Priming Grant, 2012, £2,173
EU Marie Curie Intra-European Fellowship (PI, hosted Dr Achille Pasqualotto), 2011-2013, €203,050
The Great Britain Sasakawa Foundation Grant, 2011, £2,400
Wellcome Trust Biomedical Vacation Scholarship (PI host), 2011, £1,520
Human Frontier Science Program Long-Term Fellowship (Co-I, hosted Dr Vivek Nityananda), 2010-2013, £96,380
EU Marie Curie International Incoming Fellowship (Co-I, hosted Dr Vivek Nityananda), awarded 2010, starts 2012, £129,930
SURF Abroad UNH grant. Assessment of training with vOICe vision technology over time. (PI), Summer 2009, £3,100

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Royal Society International Travel Grant, 2009, £2,800
National Science Foundation Graduate Research Fellowship, 2000-2003
Krieger School of Arts and Sciences Owen Graduate Fellowship, 2000-2003
J. Brien Key Graduate Student Assistance Fund Award (JHU), 2002, 2003

Grants under review:

BBSRC Grant: "Lost Touch: Can our sense of touch be replaced with cues from other modalities?" (Co-I; PI: Gavin Buckingham, Exeter)
EPSRC Global Challenges Grant: "CLARITY: Bringing clear vision to people in the developing world" (Co-I; PI: Eamonn O'Neill, Bath)

Professional Activities

Consulting Editor: *Cognitive Research: Principles and Implications*
Symposium Organizer, *Behaviour*, 2017
Editorial Board member: *PLoS ONE*
Symposium Organizer, International Convention of Psychological Science, 2017
Guest Editor, *Neuroscience and Biobehavioral Reviews*, Special Issue on 'Multisensory integration, sensory substitution technology and visual rehabilitation'
Guest Editor, *Multisensory Research*, Special Issue on 'Exploring Individual Differences in Multisensory Perception'
Associate Editor, *Restorative Neurology and Neuroscience*, 2015-17
Meeting Organizer: Exploring Individual Differences in Multisensory Perception, Essex, Bath, and London, 2014
Workshop Organizer: the GW4 Brain Stimulation Workshop, 2013
Advisory Board, Sensory Substitution, Brain Plasticity and Visual Rehabilitation Workshop, Jerusalem, Israel, 2013
Symposium Organizer, European Conference on Visual Perception, 2008
Ad-hoc reviewer: *Acta Psychologica*; *American Journal of Psychology*; *Attention Perception & Psychophysics*; *Behavioral & Brain Sciences*; *British Journal of Visual Impairment*; *Cognitive Processing*; *Consciousness and Cognition*; *Current Biology*; *Ergonomics*; *Experimental Biology and Medicine*; *Experimental Brain Research*; *Frontiers for Young Minds*; *Frontiers in Human Neuroscience*; *Frontiers in Psychology*; *IEEE Transactions on Human Machine Systems*; *IEEE Transactions on Neural Networks and Learning Systems*; *Journal of Experimental Psychology: Human Perception and Performance*; *Multisensory Research*; *NeuroImage*; *Neuroscience & Biobehavioral Reviews*; *Oxford University Press*; *Perception*; *Phenomenology and the Cognitive Sciences*; *Physiology & Behavior*; *PLoS ONE*; *Proceedings of the National Academy of Sciences, USA*; *Proceedings of the Royal Society – B*; *Proceedings of SIGCHI*; *Quarterly Journal of Experimental Psychology*; *Restorative Neurology and Neuroscience*; *Royal Society Open Science*; *Vision Research*; *The World Journal of Biological Psychiatry*
ESRC Peer Review College member
Grant reviewer: EPSRC; BBSRC; Australian National Health and Medical Research Academy, Pufendorf Institute for Advanced Study (Lund University, Sweden), Wellcome Trust, Deutsche Forschungsgemeinschaft (DfG; German Research Foundation), Israel Science Foundation, Action on Hearing Loss, Netherlands Organisation for Scientific Research (NWO)

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Grant panel reviewer: American Psychological Association Early Researcher Award

European Disability Forum, ICT Expert Group, 2015-
UK Synaesthesia Association
International Multisensory Research Forum
British Neuroscience Association
Association for Psychological Science
Association for the Scientific Study of Consciousness
Society for Neuroscience
Vision Sciences Society

Administrative Activities

Equality and Diversity Committee (Athena Swan Award), 2016-
Deputy Director of Research, Bath Department of Psychology, 2015-
Sensory, Attentional, and Affective Perception Research Group Founder, 2014
Engaging with Interactive Technologies Research Group Founder, 2013
Research Staff Co-ordinator, Psychology, 2013-
Bath Psychology Research Ethics Committee, Chair 2014-2016
Social Sciences Research Ethics Committee, Member 2014-2016
University Ethics Committee, Bath, Member 2014-2016
Research Methods Revision Team Leader, 2012-2014
Psychology Undergraduate Ethics Approval Scheme Leader, 2009-2012
Queen Mary University of London Research Ethics Committee, 2010-2012
Research Strategy Group, Biological and Chemical Sciences, 2011-2012
Psychology Programme Teaching Committee, 2008-2012

Teaching Experience

University of Bath

Quantitative and Research Methods I and II (primary organiser, lectures, labs)
The Psychology and Neuroscience of Blindness (primary organiser, lectures)
Final year dissertation supervisor
Second year research project tutor
Applying Psychology tutorials
Placement research student supervisor
Being a Psychologist (lecture)

Queen Mary University of London

Cognitive Psychology (primary organiser, lectures, labs)
Personality and Individual Differences (primary organiser, co-lecturer)
BSc 3rd Year Project supervisor
Essential Skills for Psychologists (tutorials)
Essential Skills for Biologists (tutorials)
Integrative Studies in the Psychological Sciences (tutorials)
Integrative Studies in the Biological Sciences (tutorials)
Postgraduate Certificate in Academic Practice (seminars on 'Cognitive approaches to teaching and learning')

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Instructor, Heinrich Heine University Düsseldorf

Mind your words: Reading and Writing about Cognitive Psychology in English
(Englisch über kognitive Psychologie lesen und schreiben)

Instructor, The Johns Hopkins University

Laboratory in the Analysis of Psychological Data (sole lecturer, lab-based practicals)

Teaching Assistant, The Johns Hopkins University

Introduction to Psychology, Animal Behavior, Child Development, Neuroscience of Pain

Postgraduate Supervision

Postdoctoral Fellow Supervision

Dr S. Navid Hajimirza (Eye-tracking and visual attention models for multimedia)

Dr Vivek Nityananda (Visual search and attention in bees in collaboration with Lars Chittka)

Dr Achille Pasqualotto (The role of visual experience in spatial cognition)

Dr David Brown (Crossmodal collaboration through perceptual correspondences)

PhD Supervisor

Daniel Finnegan (EngD student, University of Bath; Realistic auditory rendering for distance estimation and immersive game play; completed 2017)

Jie-Yu Lv (Queen Mary University of London; Promoting cooperation through empathy with public goods games, completed 2016)

David Brown (Queen Mary University of London; Learning to see what you hear with sensory substitution for the blind; completed 2015)

Seyed Navid Haji Mirza (Queen Mary University of London; Eye-tracking and visual attention models for multimedia; completed 2014)

Mu-Yun Wang (Queen Mary University of London; Visual search in bees and fish; completed 2013)

Tayfun Esenkaya (University of Bath; Crossmodal cognition and visual impairment)

Meike Scheller (University of Bath, Development of multisensory integration)

Jacob Hadnett-Hunter (University of Bath; Salience mapping, eye-tracking and virtual reality)

Axel Vittersø (University of Bath; chronic pain and sensorimotor processing)

Monika Halicka (University of Bath; chronic pain treatment with prism adaptation)

PhD Panel External Examiner

Giles Hamilton-Fletcher (Psychology, University of Sussex, UK)

Monika Sobczak-Edmans (Psychology, Brunel University, UK)

Paula Plaza (Institute of Neuroscience, Université catholique de Louvain, Belgium)

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Thomas Wright (Psychology, University of Sussex, UK)

PhD Supervisory Panel

Marius Kempe (Queen Mary University of London)
Agata Rytarska (Queen Mary University of London)
Yiyang Shen (University of Bath)
Shan Wang (University of Bath)
Clarence Singleton (University of Bath)

PhD Panel Chair or Internal Examiner

Kathryn Hunt (Queen Mary University of London)
Jo Black (University of Bath)
Yiyang Shen (University of Bath)
Shan Wang (University of Bath)

Previous Research Experience

Postdoctoral Research Fellow (Crossmodal Perception and Sensory Substitution using Behavioral, EEG/ERP and fMRI methods)
Heinrich Heine University Düsseldorf, Fall 2005 – Summer 2008

Graduate Research Fellow (Visual Perception and Attention)
The Johns Hopkins University, Fall 2000 – Fall 2005

Visiting Research Assistant (Neural Mechanisms of Attention)
Columbia University (Jacqueline Gottlieb), Summer 2003

Undergraduate Honors Thesis and Research Associate (Categorization)
Arizona State University, Spring 1997 – Fall 2000
Honors Thesis: "The Impact of Erroneous Feedback on Categorical Representations" (Advisor: Donald Homa)

Project Director (Meta-Analysis on Children's Mental Health Outcomes)
Arizona State University (Nancy Gonzales & George Knight), Fall 1996 – Fall 2000

Paid Research Assistant (Social & Emotional Development)
Arizona State University (Nancy Eisenberg), Fall 1995 – Fall 1997

Paid Research Assistant (Clinical Intervention for Children of Divorce)
NIMH Prevention and Intervention Research Center A.S.U., Summer 1996

Paid Research Assistant (Social Development: Children's Interpersonal Conflicts)
Arizona State University (Nancy Eisenberg & Bridget Murphy), Summer 1996

Other Relevant Training

Postgraduate Certificate in Academic Practice, with Distinction, Queen Mary University of London, 2009-2011
APA Advanced Training Institute Fellowship: fMRI (Boston, MA), 2005

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APA-ORI Workshop on Responsible Conduct of Research in Psychological Science (Washington, DC), 2004

Nonacademic Work Experience

Acting Chair, Vice Chair and Foundation Governor (Chair, Curriculum Committee)
St John's Primary School, Bath, UK, 2013 –

Project Manager (Public Opinion and Survey Research)
O'Neil Associates, Inc., Tempe, AZ, August 1998 – August 2000

Invited Colloquia

Psychological Sciences, University of Texas, RGV, USA, 2/2017
Madeira Interactive Technologies Institute, Portugal, 2/2017
Psychological Sciences, University of North Carolina, Charlotte, USA, 12/2016
Assisted Living Action Network Workshop, Designability Bath, 9/2016
Hack the Senses, Google London Campus, UK, 4/2016
Institute of Acoustics, UK, 4/2016
Zlotowski Center for Neuroscience, Ben Gurion University, Israel, 3/2016
Danish Ophthalmological Society, Århus, Denmark, 1/2016
School of Communications, Taylor's University, Kuala Lumpur, Malaysia, 10/2015
Symposium on Restorative Vision, WSPOS meeting, Barcelona, Spain, 9/2015
Faculty of Psychology, University of Indonesia, 8/2015
Faculty of Industrial Engineering, Bandung Institute of Technology, Indonesia
8/2015
School of Architecture, Planning and Policy Development, Bandung Institute of
Technology, Indonesia, 8/2015
School of Life Sciences and Technology, Bandung Institute of Technology,
Indonesia, 8/2015
Latitude Music Festival, Wellcome Trust Hub, UK, 7/2015
National Science Foundation, Washington, DC, USA, 4/2015
Bath Alumni Weekend "Ideas Hub", 4/2015
Science Museum "You have been upgraded" Festival, London, UK, 3/2015
Bath Alumni and Trusts Department, UK, 2/2015
GULP, University of Bath, UK, 10/2014
School of Optometry, University of Montreal, Canada, 6/2014
Centre for Academic and Professional Development, Queen Mary University of
London, UK, 5/2014
Arizona State University, East, Applied Psychology Unit, 4/2014
TEDx, Bath, UK, 3/2014 <http://tedxtalks.ted.com/video/How-well-do-you-see-what-you-he>
Wiltshire Science Festival, UK, 3/2014
Exploring Individual Differences in Multisensory Perception, Bath, UK 2014
School of Society, Enterprise and Environment, Bath Spa University, UK, 2/2014
The Blind Brain Workshop: How blindness can open our eyes on brain function,
San Giuliano Terme, Italy, 10/2013
Sensory Substitution, Brain Plasticity and Visual Rehabilitation Workshop,
Jerusalem, Israel, 6/2013
British Academy Conference on Sensory Substitution and Augmentation, London,
UK, 3/2013

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Edinburgh Science Festival panel discussion on 'Body Hacking', UK, 3/2013
Keynote Speaker, South West Universities Psychology Conference, UK 3/2013
UCL Psychological and Language Sciences, London, UK , 3/2013
Department of Psychology, Brunel University, UK, 1/2013
Workshop on Selective Attention, Department of Electrical Engineering, Imperial College, UK, 7/2012
Symposium: Synaesthesia, perception, and cognition, IMRF Meeting, Oxford, UK, 6/2012
Centre for Digital Music, School of Electronic Engineering and Computer Science, Queen Mary University of London, UK, 1/2012
Symposium: Multi-sensory integration, Sensory substitution technology and visual rehabilitation, IMRF Meeting, Fukuoka, Japan, 10/2011
School of Psychology, University of East London, UK, 3/2011
Warwick Psychology Society Annual Retreat, University of Warwick, UK, 1/2011
Plenary speaker at the Toward a Science of Consciousness Meeting, Tucson, USA, 4/2010
Whitehead Lecture in Cognition, Computation and Culture, Department of Psychology, Goldsmiths, University of London, UK, 3/2010
Biology Society, University College School, Hampstead, UK, 3/2010
School of Psychology, Birkbeck, University of London, UK, 2/2010.
Department of Psychology, Montclair State University, USA, 1/2010
Symposium: Best of JEP – New Investigator Award, APA Annual Convention, Toronto, Canada, 8/2009
Cognitive Development Center, Central European University, Budapest, Hungary, 6/2009
School of Biological and Chemical Sciences Seminar, Queen Mary University of London, UK, 4/2009
Animal Behaviour Seminar, Queen Mary University of London, UK, 11/2008
Symposium Chair at the European Conference on Visual Perception (ECVP), Utrecht, The Netherlands. 8/2008
Cognitive Neuroscience Laboratory, German Primate Center, Göttingen, Germany, 5/2008
Heymans Colloquium, Psychology Department, University of Groningen, The Netherlands, 3/2008.
Department of Psychology, Lehman College CUNY, New York City, USA, 3/2008
Department of Psychology, University of California, Riverside, USA, 1/2008
Institute of Biomedical Research in Light and Image (IBILI), Faculty of Medicine, University of Coimbra, Portugal, 10/2007
Department of Psychology, Ludwig Maximilians University Munich, Germany, 6/2007
Institute of General and Industrial Psychology, Heinrich Heine University Düsseldorf, Germany, 4/2007
Institute of Experimental Biological Psychology, Heinrich Heine University Düsseldorf, Germany, 10/2005

Publications

Scheller, M., Petrini, K., & Proulx, M. J. (in press). Perception and interactive technology. *Stevens Handbook of Experimental Psychology and Cognitive*

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Neuroscience, 4th edition: Volume 2, Sensation, Perception & Attention (John Serences, ed.). New York: Wiley.

Proulx, M. J., Brown, D. J., & Pasqualotto, A. (in press). The processing of what, where, and how: insights from spatial navigation via sensory substitution. *Proceedings of the British Academy*.

Karim, A. K. M. R., Proulx, M. J., de Sousa, A. A., Karmakera, C., Rahman, A., Karim, F., & Nigara, N. (2017). The right way to kiss: Directionality bias in head turning during kissing. *Nature Scientific Reports*, 7, doi: 10.1038/s41598-017-04942-9.

Jonas, C., Spiller, M. J., Hibbard, P. B., & Proulx, M. (2017). Introduction to the Special Issue on Individual Differences in Multisensory Perception: an Overview. *Multisensory Research*, 30, 461-466.

Esenkaya, T., & Proulx, M. J. (2017). Crossmodal processing and sensory substitution: Is "seeing" with sound and touch a form of perception or cognition? *Behavioral and Brain Sciences*, 39.

Finnegan, D. J., O'Neill, E., & Proulx, M. J. (2017). An approach to reducing distance compression in audiovisual virtual environments. *2017 IEEE 3rd VR Workshop on Sonic Interactions for Virtual Environments (SIVE)*, (pp. 1-6).

Karim, A. K. M. R., Proulx, M. J., & Likova, L. (2016). Anticlockwise or clockwise? A dynamic perception-action-laterality model for directionality bias in visuospatial functioning? *Neuroscience and Biobehavioral Reviews*, 68, 669-693.

Brown, D.J. & Proulx, M.J. (2016). Audio-vision substitution for blind individuals: Addressing human information processing capacity limitations. *IEEE Journal of Selected Topics in Signal Processing*, 10, 924-931.

Proulx, M. J., Todorov, O., Taylor Aiken, A., & de Sousa, A. A. (2016). Where am I? Who am I? The relation between spatial and social cognition in the built environment. *Frontiers in Psychology*, 7. doi=10.3389/fpsyg.2016.00064

Finnegan, D. J., O'Neill, E., & Proulx, M. J. (2016, May). Compensating for Distance Compression in Audiovisual Virtual Environments Using Incongruence. In *Proceedings of the 2016 CHI Conference on Human Factors in Computing Systems* (pp. 200-212). ACM.

Proulx, M. J., Gwinnutt, J., Dell'Erba, S., Levy-Tzedek, S., de Sousa, A. A., & Brown, D. J. (2016). Other ways of seeing: from behavior to neural mechanisms in the online "visual" control of action with sensory substitution. *Restorative Neurology & Neuroscience*, 34, 29-44.

Brown, D. J., Simpson, A. J. S., & Proulx, M.J. (2015). Auditory Scene Analysis and sonified visual images: Does consonance negatively impact on object

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formation when using complex sonified stimuli? *Frontiers in Psychology*, 6. doi: 10.3389/fpsyg.2015.01522

- Lv, J., Proulx, M.J., & Osman, M. (2015). The role of personal values and empathy in a cooperative game. *Journal of Social Sciences Research*, 9, 1834-1844.
- Pasqualotto, A., Kobanbay, B., & Proulx, M. J. (2015). Neural stimulation has a long-term effect on foreign vocabulary acquisition. *Neural Plasticity*, 2015, 7. doi:10.1155/2015/671705.
- Pasqualotto, A., & Proulx, M.J. (2015). Two-dimensional rubber-hand illusion: The Dorian Gray hand illusion. *Multisensory Research*, 28, 101-110.
- Proulx, M. J. & Elmasry, H. M. (2015). Stroop interference in adults with dyslexia. *Neurocase*, 21, 413-417.
- Brown, D. J., Simpson, A. J. R., & Proulx, M. J. (2014). Visual objects in the auditory system via sensory substitution: How much information do we need? *Multisensory Research*, 27, 337-357. doi: 10.1163/22134808-00002462
- Proulx, M. J., Parker, M. O., Tahir, Y., & Brennan, C. H. (2014). Parallel mechanisms for visual search in zebrafish. *PLoS ONE*, 9(10): e111540. doi: 10.1371/journal.pone.0111540
- de Sousa, A. A., & Proulx, M. J. (2014). What can volumes reveal about human brain evolution? A framework for bridging behavioral, histometric and volumetric perspectives. *Frontiers in Neuroanatomy*, 8, 51. doi: 10.3389/fnana.2014.00051
- Proulx, M. J., Brown, D., Pasqualotto, A., & Meijer, P. (2014). Multisensory perceptual learning and sensory substitution. *Neuroscience and Biobehavioral Reviews*, 41, 16-25. doi: 10.1016/j.neubiorev.2012.11.017
- Proulx, M. J., Ptito, M., & Amedi, A. (2014). Multisensory integration, sensory substitution and visual rehabilitation. *Neuroscience and Biobehavioral Reviews*, 41, 1-2. doi: 10.1016/j.neubiorev.2014.03.004
- Proulx, M. J. (2014). The perception of shape from shading in a new light. *PeerJ*, 2, e363. doi: 10.7717/peerj.363.
- Pasqualotto, A., Taya, S., & Proulx, M. J. (2014). Sensory deprivation: Visual experience alters the mental number line. *Behavioural Brain Research*, 261, 110-113.
- Pasqualotto, A. & Proulx, M. J. (2014) Mechanisms of short-term false memory formation. *The Journal of Neurobehavioral Sciences*, 1, 3-8.

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- Brown, D. J., & Proulx, M. J. (2013). Increased signal complexity improves the breadth of generalization in auditory perceptual learning. *Neural Plasticity*, 2013, 9. doi: 10.1155/2013/879047
- Pasqualotto, A., & Proulx, M. J. (2013). The study of blindness and technology can reveal the mechanisms of three-dimensional navigation. *The Behavioral and Brain Sciences*, 36(5), 559-560. doi: 10.1017/S0140525X13000496 (commentary)
- Haigh, A., Brown, D., Meijer, P., & Proulx, M. J. (2013). How well do you see what you hear? The acuity of visual-to-auditory sensory substitution. *Frontiers in Psychology*, 4, 10.3389/fpsyg.2013.00330
- Wang, M. Y., Ings, T. C., Proulx, M. J., & Chittka, L. (2013). Can bees simultaneously engage in adaptive foraging behaviour and attend to cryptic predators? *Animal Behaviour*, 86, 859-866.
- Proulx, M. J. (2013). Introducing the process and content of research into lectures, the laboratory, and study time. *College Teaching*, 61, 85-87.
- Pasqualotto, A., Lam, J., & Proulx, M. J. (2013). Congenital blindness improves semantic and episodic memory. *Behavioural Brain Research*, 244, 162-165.
- Proulx, M. J. (2013). Blindness: remapping the brain and the restoration of vision. *Psychological Science Agenda*. American Psychological Association. February.
- Proulx, M. J. (2013). Visual Search. In H. Pashler, T. Crane, M. Kinsbourne, F. Ferreira, & R. Zemel (Eds.), *Encyclopedia of the Mind* (Vol. 2, pp. 762-765). Thousand Oaks, CA: Sage Publications. doi: 10.4135/9781452257044
- Pasqualotto, A., Spiller, M.J., Jansari, A., & Proulx, M. J. (2013). Visual experience facilitates allocentric spatial representation. *Behavioural Brain Research*, 236, 175-179.
- Pasqualotto, A., & Proulx, M. J. (2012). The role of visual experience for the neural basis of spatial cognition. *Neuroscience & Biobehavioral Reviews*, 36, 1179-1187.
- Haji Mirza, S. N., Proulx, M. J., & Izquierdo, E. (2012). Reading users' minds from their eyes for implicit image annotation. *IEEE Transactions on Multimedia*, 14, doi: 10.1109/TMM.2012.2186792.
- Proulx, M. J. & Green, M. (2011). Does apparent size capture attention in visual search? Evidence from the Müller-Lyer illusion. *Journal of Vision*, 11(13):21, 1-6, <http://www.journalofvision.org/content/11/13/21>, doi:10.1167/11.13.21.
- Proulx, M. J. (2011). Consciousness: what, why and how. *Science*, 332, 1034-1035.

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(Book review of *Soul Dust: The Magic of Consciousness* by Nicholas Humphrey)

- Proulx, M. J. (2011). Individual differences and metacognitive knowledge of visual search strategy. *PLoS ONE*, 6, e27043.
- Proulx, M. J. (2010). Size matters: Large objects capture attention in visual search. *PLoS ONE*, 5, e15293.
- Proulx, M. J. (2010). Synthetic synaesthesia and sensory substitution. *Consciousness and Cognition*, 19, 501-503.
- Zehetleitner, M., Proulx, M. J., & Mueller, H. J. (2009). Additional-singleton interference in efficient visual search: A common salience route for detection and compound tasks. *Attention, Perception & Psychophysics*, 71, 1760-1770.
- Proulx, M. J., & Harder, A. (2008). Sensory Substitution. Visual-to-auditory sensory substitution devices for the blind. *Dutch Journal of Ergonomics/Tijdschrift voor Ergonomie*, 33, 20-22.
- Liang, M., van Leeuwen, T. M., & Proulx, M. J. (2008). Propagation of brain activity during audiovisual integration. *The Journal of Neuroscience*, 28, 8861-8862.
- Proulx, M. J., Stoerig, P., Ludowig, E., & Knoll, I. (2008). Seeing "where" through the ears: Effects of learning-by-doing and long-term sensory deprivation on localization based on image-to-sound substitution. *PLoS ONE*, 3, e1840.
- Proulx, M. J. & Egeth, H. E. (2008). Biased-competition and visual search: the role of luminance and size contrast. *Psychological Research*, 72, 106-113.#
- Homa, D., Proulx, M. J., & Blair, M. (2008). The modulating influence of category size on the classification of exception patterns. *Quarterly Journal of Experimental Psychology*, 61, 425-443.
- Proulx, M. J. (2007). Turning on the spotlight: Do attention and luminance contrast affect neuronal responses in the same way? *The Journal of Neuroscience*, 27, 13043-13044.
- Proulx, M. J. (2007). Bottom-up guidance in visual search for conjunctions. *Journal of Experimental Psychology: Human Perception & Performance*, 33, 48-56.
- Proulx, M. J. & Stoerig, P. (2006). Seeing sounds and tingling tongues: Qualia in synaesthesia and sensory substitution. *Anthropology & Philosophy*, 7, 135-151. (Special issue on mental imagery, visual perception and knowledge; by invitation)

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Proulx, M. J. & Serences, J. T. (2006). Searching for an oddball: neural correlates of singleton detection mode in parietal cortex. *The Journal of Neuroscience*, 26, 12631-12632.

Proulx, M. J. & Egeth, H. E. (2006). Target-nontarget similarity modulates stimulus-driven control in visual search. *Psychonomic Bulletin & Review*, 13, 524-529.

Manuscripts under review or in preparation

Jicol, C., Proulx, M., Pollick, F. & Petrini, K. (under review). Long-term music training modulates the recalibration of audiovisual simultaneity.

Pasqualotto, A., Rosenberg, A., & Proulx, M. J. (under review). The insensible Rubber Hand Illusion: Interoceptive cues reduce the emotional reaction to the threat to the rubber hand.

Bala, S., Brown, D. J., McDaniel, T., Esenkaya, T., Proulx, M. J., & Panchanathan, S. (under review). Affective haptic and auditory display design patterns to support non-visual social interactions. *IEEE Transactions on Affective Computing*.

Karim, A. K. M. R., & Proulx, M. J. (under revision). The neural basis for perceiving aesthetics through touch with and without visual experience.

Pasqualotto, A., Proulx, M. J., & Sereno, M. I. (under revision). Visual experience organizes human multisensory parietal face maps. *Brain Structure & Function*.

LV, J., Proulx, M. J., & Osman, M. (under revision). Can empathy promote cooperation when status and money matter?

LV, J., Proulx, M. J., & Osman, M. (in preparation). Examining the relationship between empathy and cooperation: a systematic review of behavioral methods.

Treglown, L., Proulx, M. J., & de Sousa, A. A. (in preparation). A potential Dark Side to visual impairment: an application to mental health and personality in the workplace.

Brown, D.J., Esenkaya, T., & Proulx, M.J. (in preparation). Figure and ground through touch and sound.

Brown, D.J., Esenkaya, T., & Proulx, M.J. (in preparation). Touching and hearing crossmodal correspondences and sound symbolism with Bouba and Kiki.

Finnegan, D. J., Proulx, M. J., & O'Neill, E. (in preparation). A tutorial on multisensory psychophysics in virtual reality experiments.

Meeting Presentations

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- Proulx, M. J., & de Sousa, A. A. (2017). A comparative approach to the neuroanatomy and behavior of visual deprivation in humans: from animal models to model animals. Paper presented at Behavior 2017, Estoril, Portugal.
- de Sousa, A. A., & Proulx, M.J. (2017). The diverse relevance of animal behaviour for human cognition. Symposium organized at Behaviour 2017, Estoril, Portugal.
- Proulx, M. J., & de Sousa, A. A. (2017). Perceptual asymmetry in dichotic listening: Reading the world through the ears with sensory substitution for the visually impaired. Paper presented at the Seventh Iberian Congress on Perception, Coimbra, Portugal.
- Scheller, M., Proulx, M., & Petrini, K. (2017). Development of non-visual multisensory integration in sighted and non-sighted individuals. 10th European Conference on Visual Perception (ECPV), Berlin, Germany.
- Halicka, M., Vittersø, A. D., Proulx, M. J., & Bultitude, J. H. (2017). Attention bias in Complex Regional Pain Syndrome (CRPS) – a case study. EFIC Pain Congress, Copenhagen, Denmark.
- Halicka, M., Vittersø, A. D., Proulx, M. J., & Bultitude, J. H. (2017). Pain reduction by inducing sensory-motor adaptation: CRPS PRISMA trial protocol. Complex Regional Pain Syndrome Conference, Cork, Ireland.
- Jicol, C., Proulx, M., Pollick, F. & Petrini, K. (2016). Musical training modulates brain recalibration of audiovisual simultaneity. 9th European Conference on Visual Perception (ECPV), Barcelona, Spain.
- Todorov, O., de Sousa, A. A., Watson, S., Proulx, M. J., Esenkaya, T., & Brown, D. J. (2016). Laterality of sensory substitution. North Sea Laterality Conference, Groningen, NL.
- Pasqualotto, A. & Proulx, M. J. (2015) Transcranial random noise stimulation has a long-term effect on visually-based numeric competence. Asia-Pacific Conference on Vision, Singapore.
- Metatla, O., Bryan-Kinns, N., Stockman, T., Martin, F., Tanaka, A., Parkinson, A., Proulx, M. J., & Brown, D. J. (2015). Developing audio-haptic interactive systems for accessible Digital Audio Workstations. Visually Impaired Musician's Lives meeting, London, UK.
- Bryan-Kinns, N., Stockman, T., Metatla, O., Martin, F., Tanaka, A., Parkinson, A., Proulx, M. J., & Brown, D. J. (2014). Design patterns for inclusive collaboration. Digital Economy 2014 meeting, London, UK.
- Proulx, M. J., de Sousa, A. A., Pasqualotto, A., & Sereno, M. I. (2014). Visual impairment and spatial cognitive neuroscience. Academy of Neuroscience for Architecture, Salk Institute, La Jolla, USA.

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- LV, J., Proulx, M. J., & Osman, M. (2014). Empathy and status: modulating factors of cooperation. Poster presented at Decision Making Bristol, UK.
- Pasqualotto, A., Kobanbay, B., & Proulx, M. J. (2014) Parietal transcranial random noise stimulation improves long-term visual acquisition of foreign vocabulary. *Perception 43 ECVF Abstract Supplement*, 24, Belgrade, Serbia.
- Proulx, M. J. (2014). Sensory substitution devices for visual rehabilitation and crossmodal collaboration. Blindness, Technology and Multisensory Reading, Wellcome Trust Conference, London, UK.
- Pasqualotto, A., Proulx, M. J., & Sereno, M. I. (2013). Visual experience and the establishment of tactile face-maps in the brain. Poster presented at the European Conference on Visual Perception, Bremen, Germany.
- Proulx, M. J., Pasqualotto, A., & Sereno, M. I. (2013). Visual experience and the establishment of spatial and tactile maps in the brain. Paper presented at the International Multisensory Research Forum, Jerusalem, Israel.
- Brown, D. J., & Proulx, M. J. (2013). Touching bouba, hearing kiki: Image resolution and sound symbolism in visual-to-auditory sensory substitution. Paper presented at the International Multisensory Research Forum, Jerusalem, Israel.
- de Sousa, A. A., & Proulx, M. J. (2012). What are big brains for? Plenary paper presented at the European Society for the study of Human Evolution, Bordeaux, France.
- Nityananda, V., Wang, M-Y., Ings, T., Proulx, M. J., Skorupski, P., Patrick, J., & Chittka, L. (2012). Visual search and attention in bumblebees. Symposium paper presented at the Tenth International Congress of Neuroethology, College Park, USA.
- Pasqualotto, A., & Proulx, M. J. (2012). Always trust the congenitally blind man. Poster presented at the European Conference on Visual Perception, Alghero, Italy.
- Taya, S., Pasqualotto, A., & Proulx, M. J. (2012). Is the mental number line hard-wired? A comparison of number-space interaction between blind and sighted subjects. Paper presented at the Japanese Psychological Association, Kanagawa, Japan.
- Proulx, M. J., Pasqualotto, A., & Taya, S. (2012). The role of visual experience for spatial numerical associations. Symposium paper presented at the International Multisensory Forum, Oxford, UK.
- Pasqualotto, A., & Proulx, M. J. (2012). The role of visual experience in spatial reference frame preference. Poster presented at the International Multisensory Forum, Oxford, UK.

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- Brown, D. J., & Proulx, M. J. (2012). Look ear! Learning to use a visual-to-auditory sensory substitution device. Paper presented at the UK Synaesthesia Association meeting, Oxford, UK.
- Proulx, M. J., & de Sousa, A. A., (2012). The evolution of visual illusions: The relationship of primary visual cortex volume to illusory size perception in primates. Paper presented at the Toward a Science of Consciousness meeting, Tucson, AZ.
- Brown, D. J., & Proulx, M. J. (2012). Generalization of perceptual learning using a visual-to-auditory sensory substitution device. Poster presented at the Cognitive Neuroscience Society Meeting, Chicago, IL.
- Hajimirza, N., Proulx, M. J., & Izquierdo, E. (2011). Gaze movement inference for user adapted image annotation and retrieval. Paper presented at the ACM Multimedia 2011 Meeting, Scottsdale, AZ.
- Proulx, M. J., Brown, D., & Pasqualotto, A. (2011). Crossmodal perceptual learning and sensory substitution. Symposium paper presented at the International Multisensory Research Forum, Fukuoka, Japan.
- de Sousa, A. A., & Proulx, M. J. (2011). The relationship of primary visual cortex volume to illusory size perception in anthropoid primates. Paper presented at the Fourth Iberian Conference on Perception, Spain.
- Proulx, M. J. & Brown, D. (2011). Synthetic synaesthesia and sensory substitution. Plenary paper presentation at the UK Synaesthesia Association Meeting. London, UK.
- Proulx, M. J. (2010). Synthetic and natural crossmodal mappings explored with sensory substitution. Plenary speaker presentation at the Toward a Science of Consciousness Meeting, Tucson, AZ.
- Stoerig, P., Proulx, M. J., & van Leeuwen, T. (2009). Object recognition through image-to-sound-based sensory substitution of sight. Poster presented at the Association for the Scientific Study of Consciousness meeting, Berlin, Germany.
- Proulx, M. J. (2008). Visualizing synaesthesia: attention, perception, and crossmodal plasticity. *Perception*, 37, ECVF Abstract Supplement, page 168.
- Zehetleitner, M., Müller, H. J., & Proulx, M. J. (2008). Cross-dimensional distraction from additional singletons: one route of processing for detection and selection tasks. Poster presented at the Second International Symposium on Visual Search and Selective Attention, Fribourg, Switzerland.
- Proulx, M. J. & Stoerig, P. (2008). Object recognition learning with an image-to-sound sensory substitution system. Poster presented at the 6th FENS Forum of European Neuroscience, Geneva, Switzerland.

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- Stoerig, P., & Proulx, M. J. (2008). Learning to recognize objects with an image-to-sound conversion-based sensory system. Paper presented at the Volkswagen Foundation status symposium on "Dynamics and adaptivity of neuronal systems," Tübingen, Germany.
- Proulx, M. J., Stoerig, P., Ludowig, E., & Knoll, I. (2006). Seeing "where" through the ears? Localization by sensory substitution. Paper presented at the Association for the Scientific Study of Consciousness meeting, Oxford, England.
- Proulx, M. J. (2005). Bottom-up guidance in visual search for conjunctions. Poster presented at the Society for Neuroscience meeting, Washington, DC.
- Proulx, M. (2004). Environmental influences on shape from shading. Poster presented at the Object Perception Attention and Memory meeting, Minneapolis, MN.
- Proulx, M., & Egeth, H. E. (2002). No contingencies: Attentional prioritization by big or bright singletons. Poster presented at the Vision Sciences Society meeting, Sarasota, FL.
- Proulx, M., & Egeth, H. E. (2002). Does task difficulty modulate stimulus-driven attentional prioritization in visual search? Paper presented at the Object Perception Attention and Memory meeting, Kansas City, MO.
- Proulx, M., & Homa, D. (1998). Impact of erroneous feedback on categorical representations. Paper presented at the Western Psychological Association and Rocky Mountain Psychological Association conference, Albuquerque, NM.

References

On request.