Sébastien M. Crouzet

CIVIL STATUS	Age: 31 Citizenship: French Married, one daughter.

CONTACT INFORMATION

Berlin School of Mind and Brain
Luisenstraße 56, 10117 Berlin, Germany

e-mail: seb.crouzet@gmail.com
web: http://scrouzet.github.com

CURRENT POSITION

Post-doctoral Researcher, Charité University, Berlin, Germany
Principal Investigator: Niko Busch
Topic: Reentrant processing and visual awareness: neural and perceptual mechanisms

EDUCATION & ACADEMIC EXPERIENCE

Post-doctoral Researcher, Brown University, Providence, RI, USA **2010-2012**
Principal Investigator: Thomas Serre
Topic: Linking behavioral and electrophysiological data to computational models

Ph.D. in Neurosciences, Université de Toulouse, CNRS, France **2010**
Advisor: Dr Simon J. Thorpe
Committee: F. Vitu-Thibault, G.A. Rousselet, O. Pascalis, B. Rossion, P-G Zanone, D. Bazalgette
Topic: Ultra-rapid recognition of objects in natural scenes.
Highest academic distinction: Très honorable avec les félicitations du jury à l'unanimité.

European Summer School in Visual Neurosciences **Sep 2008**
'From Spike to Awareness', Organisation: K. Gegenfurtner, F. Bremmer, J. Braun.
Rauischholzhausen, Germany

Master in Cognitive Science, *Graduated magna cum laude* **2006**
ENS / EHESS / Ecole Polytechnique / Paris 5 / Paris 6, France

Licence in Cognitive Science, *Graduated magna cum laude* **2004**
Université Bordeaux 2, France

DEUG in Psychology **2003**
Université Paris 5, France

Baccalauréat Scientifique, spécialité Mathématiques **2000**
Lycée Bernard Palissy, Saintes, France

REFEREED JOURNAL ARTICLES

Crouzet SM, Overgaard M & Busch NA (2014). Visual masking leaves fastest saccadic responses intact. *PLoS ONE*, 9(2), e87418. doi: 10.1371/journal.pone.0087418

Cauchoix M and **Crouzet SM** (2013). How plausible is a subcortical account of rapid visual recognition?. Front. Hum. Neurosci. 7:39. doi: 10.3389/fnhum.2013.00039

Crouzet SM, Joubert OR, Thorpe SJ, Fabre-Thorpe M (2012) Animal Detection Precedes Access to Scene Category. PLoS ONE 7(12): e51471. doi: 10.1371/journal.pone.0051471

Crouzet SM and Thorpe SJ (2011). Low level cues and ultra-fast face detection. Front. Psychology 2:342. doi: 10.3389/fpsyg.2011.00342

Crouzet SM and Serre T (2011). What are the visual features underlying rapid object recognition? Front. Psychology 2:326. doi: 10.3389/fpsyg.2011.00326

Crouzet, S. M., Cauchoix, M. (2011). When does the visual system need to look back? *The Journal of Neuroscience*, 15 June 2011, 31(24): 8706-8707

Crouzet, S. M., Kirchner, H., & Thorpe, S. J. (2010). Fast saccades toward faces: Face detection in just 100 ms. *Journal of Vision*, 10(4):16, 1-17, http://journalofvision.org/10/4/16/, doi:10.1167/10.4.16.

Book Chapter	M., Fabre-Thorpe, **S. Crouzet**, G. A. Rousselet, H. Kirchner and S. J. Thorpe (2008). Catégorisation visuelle rapide: les visages sont-ils des objets spécifiques? In *Traitement et reconnaissance des visages: du percept à la personne.* E. J. Barbeau, S. Joubert and O. Felician. Marseille, Solal: 239-260.

Conference Presentations

Sébastien M. Crouzet, Simon Hviid Del Pin, Morten Overgaard & Niko A. Busch (2014) Revealing the dynamics of visual masking using a speeded saccadic choice task. Submitted to VSS2014.

Imri Sofer, Sébastien M. Crouzet & Thomas Serre (2014) A simple rapid categorization model accounts for variations in behavioral responses across rapid scene categorization tasks. Submitted to VSS2014.

Sébastien M. Crouzet, Niko A. Busch, & Kathrin Ohla (2014) Multivariate classification of ERP topographical information allows to investigate taste quality perception time-course. Cutting EEG 2014.

Imri Sofer, Kwang Ryeol Lee, Pachaya Sailamul, Sébastien Crouzet & Thomas Serre (2013) Understanding the nature of the visual representations underlying rapid categorization tasks. [Abstract]. Journal of Vision, 13(9), article 658.

Crouzet SM, Hviid Del Pin S, Overgaard M & Busch NA (2013) Dynamics of saccadic responses reveal how object substitution masking interferes with reentrant processing. 55th TeaP - Tagung experimentell arbeitender Psychologen (Conference of Experimental Psychologists).

Crouzet SM, Cauchoix M, Fize D & Serre T (2011) The neural basis of rapid categorization: Linking computational models and electrophysiology. NIPS 2011 workshop on machine learning and interpretation in neuroimaging.

Cauchoix M., Crouzet S., Fize D. & Serre T. (2011) Visual features and dynamics of rapid recognition in monkey visual cortex. SFN 2011

Crouzet S M, Stemmler T, Capps M, Fahle M & Serre T (2011) Single-trial decoding of binocular rivalry switches from oculometric and pupil data. Vision Science Society, Naples, Florida.

Brilhault A, Mathey M, Jolmes N, Crouzet S M & Thorpe SJ (2011) Saccades to color: an ultra-fast controllable mechanism to low-level features. Vision Science Society, Naples, Florida.

Thorpe S J, Brilhault A, Mathey M, Crouzet S M, 2010, "Colour based target selection for ultrarapid saccades: The fastest controllable selection mechanism?" Perception 39 ECVP Abstract Supplement, page 158

Mathey M A, Crouzet S M, Thorpe S J, 2010, "The accuracy of ultra-rapid saccades to faces" Perception 39 ECVP Abstract Supplement, page 171

Crouzet, S. M. & Thorpe, S. J. (2010) Power spectrum cues underlying ultra-fast saccades towards faces [Abstract]. Journal of Vision, 10(7): 634

Mathey, M. A., Crouzet, S. M. & Thorpe, S. J. (2010) Ultra-rapid saccades to faces : the effect of target size [Abstract]. Journal of Vision, 10(7): 635

Crouzet S, Mathey M, Thorpe S J (2009). Ultra-fast saccades to faces: A temporal precedence effect? Perception 38 ECVP Abstract Supplement, page 157.

Crouzet, S. M., Joubert, O. R., Thorpe, S. J., & Fabre-Thorpe, M. (2009). The bear before the forest, but the city before the cars: Revealing early object/background processing [Abstract]. Journal of Vision, 9(8):954

Fabre-Thorpe, M., Crouzet, S. M., Wu, C.-T., & Thorpe, S. J. (2009). At 130 ms you "know" where the animal is but you don't yet "know" it's a dog [Abstract]. Journal of Vision, 9(8):786

Thorpe, S. J., Crouzet, S. M., Macé, M. J., Bacon-Macé, N., & Fabre-Thorpe, M. (2009). Masking in a high-level gender discrimination task is essentially entirely pre-cortical [Abstract]. Journal of Vision, 9(8):546

S Crouzet, H Kirchner, S J Thorpe (2008). Saccading towards faces in 100 ms. What's the secret? Perception 37 ECVP Abstract Supplement, page 119.

S J Thorpe, H Kirchner, S Crouzet, P Bayerl, H Neumann (2008). Processing times for optic flow patterns measured by the saccadic choice task. Perception 37 ECVP Abstract Supplement, page 40.

Crouzet, S., Thorpe, S. J., & Kirchner, H. (2007). Category-dependent variations in visual processing time. Journal of Vision, 7(9):922,922a, http://journalofvision.org/7/9/922/, doi:10.1167/7.9.922.

Thorpe, S., Crouzet, S., & Kirchner, H. (2007). Saliency maps and ultra-rapid choice saccade tasks. Journal of Vision, 7(9):30, 30a, http://journalofvision.org/7/9/30/, doi:10.1167/7.9.30.

Simon J. Thorpe, Sébastien Crouzet, Holle Kirchner and Michèle Fabre-Thorpe (2006). Ultra-rapid face detection in natural images : implications for computation in the visual system. First French Conference on Computational Neurosciences, pp. 124-127. Abbaye des Prémontrés, Pont à Mousson, France.

Simon J. Thorpe, Sébastien Crouzet and Holle Kirchner (2006). Comparing processing speed for complex natural scenes and simple visual forms. Perception, vol. 35, p 128.

INVITED TALKS	*Invited by David Sheinberg*, Brown University, Providence, RI, USA An early cortical basis for speed of sight.	**Mar 2012**
	Invited by Simon J. Thorpe, CERCO-CNRS, Toulouse, France Rapid Visual Processing of Natural Scenes: Linking Behavioral and Electrophysiological Data to Computational Models.	**Jan 2012**
	In-House Seminar, Neuroscience Department, Brown University, Providence, RI, USA Rapid Visual Processing of Natural Scenes: Linking Behavioral and Electrophysiological Data to Computational Models.	**Nov 2011**
	Invited by Aude Oliva, MIT, Cambridge, MA, USA Revealing early visual processing of natural scenes using a saccade choice task.	**May 2009**

EDITORIAL SERVICE

Animal Cognition; Attention, Perception, & Psychophysics; Brain Topography; Cerebral Cortex; Frontiers in Perception Science (review editor); IEEE Transactions on Pattern Analysis and Machine Intelligence; Journal of Vision; PLoS ONE; Psychological Science; Seeing and Perceiving.

TEACHING CERTIFICATION

Qualification pour la fonction de Maître de conférences - section 69 - Neurosciences
08/02/2012 - 31/12/2016 (numéro de qualification : 12269224957)

TEACHING EXPERIENCE

Instructor (14 sessions of 90 min)   **2013/2014**
Master program, Berlin School of Mind & Brain, Berlin, Germany
Seminar on visual perception. Teaching in English language.

Statistics Tutorial (6h)   **Dec 2012**
Doctoral school, Berlin School of Mind & Brain, Berlin, Germany
Using the R environment for data analysis, statistical computing and graphics. Teaching in English language.

Guest lecture (2h)   **2011**
Computational Vision course, CLPS1520, Brown University, Providence, RI, USA
Object recognition in natural scenes. Teaching in English language.

Teaching Assistant (96h over 3 years)   **2006 to 2009**
Department of Psychology, Université Toulouse Le Mirail, Toulouse, France
Introduction to Neurosciences

Instructor (30h over 3 years)   **2006 to 2009**
School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France
Visual system and eye movements

Instructor (24h over 2 years)   **2006 to 2007**
School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France
Epistemology of neuropsychology

Instructor (10h)   **2006**
School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France
Sleep, emotions

ACADEMIC MENTORING

As a PhD student and post-doc, I have worked with:

Luca Lemi	*PhD student at the Berlin School of Mind and Brain, Germany*
Simon Ludwig	*Master student at Freie Universität, Berlin, Germany*
Maxime Cauchoix	*PhD student at Université Toulouse 3 Paul Sabatier, Toulouse, France*
Imri Sofer	*PhD student at Brown University, Providence, USA*
Robin Martins	*Undergraduate student at Brown University, Providence, USA*
Rohan Katipally	*Undergraduate student at Brown University, Providence, USA*
Marie Mathey	*Master student in Toulouse, France*

Organizer of Cutting EEG 2014   **19–21 February 2014**
Member of the organizing committee for the Cutting EEG 2014: Symposium on cutting-edge EEG methods. Specifically in charge of the proceedings' publication in Journal of Neuroscience Methods.
<http://www.mind-and-brain.de/postdoctoral-program/scientific-events/cutting-eeg/>
Berlin, Germany

Organizer of the J3CN   **2010 to 2011**
Journal Club for Cognitive & Computational Neuroscience, Brown University
<https://sites.google.com/a/brown.edu/j3cn/>
Providence, USA

Header of the Organizing Committee for the CJCSC'09   **2008 to 2009**
French Cognitive Science Young Researcher Conference
<http://fresco.risc.cnrs.fr/cjcsc2009/>
Toulouse, France

Header of the Young Researcher Workshop for trend forecasting   **2009**
in Cognitive Science
Part of the PIRSTEC project funded by the French National Research Agency (ANR)
<http://pirstec.risc.cnrs.fr>

Students and Post-Docs representative   **2006 to 2009**
Brain and Cognition Research Center lab council
Toulouse, France

Founding member of the association inCOGnu   **2006 to 2009**
Association of cognitive science students of Toulouse
<http://incognu.fr/>
Toulouse, France

Grant awarded to Niko Busch   **Sep 2012 to Aug 2014**
Deutsche Forschungsgemeinschaft (DFG)

Grant awarded to Thomas Serre   **Sep 2010 to Jul 2012**
Defense Advanced Research Projects Agency (DARPA).
I had an active participation in the monthly+trimestrial+annual reports.

4th year of Ph.D. fellowship   **Nov 2009 to May 2010**
Fondation pour la Recherche Médicale (FRM)

Postgraduate scholarship   **Oct 2006 to Sep 2009**
Délégation Générale pour l'Armement (DGA, French Ministry of Defense)

Master scholarship (bourse d'excellence)   **Sep 2005 to Jun 2006**
Université René Descartes Paris 5

Society for Neuroscience
Vision Science Society

PROFESSIONAL
SKILLS
Operating Systems: Advanced knowledge of Mac OS and GNU Linux.
Programming languages: MATLAB, R, Python.
Experimental testing: Psychtoolbox for MATLAB.
Eye movement recording: SR Research Eyelink, SMI View Eyetracker, Chronos Eyetracker, EOG.
EEG and iEEG analysis: Homemade MATLAB functions and EEGlab.
Statistical Analysis: Parametric and non-parametric tests, Multivariate Pattern Analysis.
Communication and publishing: Advanced knowledge of LaTeX, Adobe Illustrator & the presentation
software Keynote (Mac OS); website creation and maintenance with HTML and CSS.

REFEREES

Dr Simon J. Thorpe
Ph.D. advisor
CNRS, Toulouse, France
phone: *available on request*
e-mail: *simon.thorpe@cerco.ups-tlse.fr*

Dr Thomas Serre
Post-doc advisor
Brown University, Providence, RI, USA
phone: *available on request*
e-mail: *thomas_serre@brown.edu*

Dr Niko A. Busch
Post-doc advisor
Charité University, Berlin, Germany
phone: *available on request*
e-mail: *niko.busch@charite.de*