## Sébastien M. Crouzet

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Information Department of Cognitive and Linguistic Sciences

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Current Post-doctoral Associate

Position Department of Cognitive and Linguistic Sciences, Brown University, Providence, RI, USA

Ph.D. in Neurosciences EDUCATION 2010

> Université de Toulouse, France Advisor: Dr Simon Thorpe

European Summer School in Visual Neurosciences September 2008

'From Spike to Awareness', Organisation: K. Gegenfurtner, F. Bremmer, J. Braun.

Rauischholzhausen, Germany

Master in Cognitive Science, Mention Bien 2006

ENS / EHESS / Ecole Polytechnique / Paris 5 / Paris 6, France

Advisor: Dr Simon Thorpe

Licence in Cognitive Science, Mention Assez Bien

2004

Université Bordeaux 2, France

Publications Refereed Journal Articles

> 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 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 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

Revealing early visual processing of natural scenes using a saccade choice task (May 2009). Aude Oliva's lab meeting. MIT, Boston, MA

Professional Services

Ad Hoc Reviewer

Brain Topography Animal Cognition Frontiers in Perception Science Seeing and Perceiving

Review Editor

Frontiers in Perception Science

Teaching EXPERIENCE Guest lecture 2011

Computational Vision course, CLPS1520, Brown University, Providence, RI, USA Object recognition in natural scenes

> Teaching Assistant 2006 to 2009

Department of Psychology, Université Toulouse Le Mirail, Toulouse, France

Introduction to Neurosciences

Instructor 2006 to 2009

School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France The visual system

Instructor 2006 to 2007

School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France

Epistemology of neuropsychology

2006 Instructor

2010 to 2011

2008 to 2009

2006 to 2009

School of Psychomotricity, Faculté de Médecine de Rangueil, Toulouse, France Sleep, emotions

Official Commitments Co-organizer of the J3CN

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

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

Brain and Cognition Research Center lab council

Toulouse, France

Founding member of inCOGnu

2006 to 2009 Association of cognitive science students of Toulouse

http://incognu.fr/

Toulouse, France

Fellowships, Grants & Scholarships 4th year of Ph.D. fellowship

Fondation pour la Recherche Médicale (FRM)

Postgraduate scholarship

Oct 2006 to Sep 2009

Nov 2009 to May 2010

Délégation Générale pour l'Armement (DGA, French Ministry of Defense)

Master scholarship 2005 to 2006

René Descartes University (Paris 5)

TECHNICAL SKILLS Operating Systems: Mac OS X, GNU/Linux (Ubuntu, Fedora, Mandriva), MS Windows

Experiments: MATLAB, Psychtoolbox-3 for MATLAB

Data Analysis: R, MATLAB

Eye movement recording: SMI View Eyetracker, Chronos Eyetracker, EOG

Other: LATEX, Adobe Illustrator, Keynote, HTML, CSS