

Danique Jeurissen

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Position:

08/2015 - present Postdoctoral fellow
Columbia University
Department of Neuroscience
New York, NY, USA
Advisor: Prof. Michael N. Shadlen
Co-advisor: Prof. Doris Y. Tsao (Caltech)
Fellowship: Simons Foundation

Education:

12/2010 - 07/2015 PhD
Netherlands Institute for Neuroscience
Royal Netherlands Academy of Arts and Sciences
Department of Vision and Cognition
Amsterdam, the Netherlands
Thesis: Perceptual grouping of complex objects in the primate visual system
Degree: March 10, 2016; VU University, Amsterdam, the Netherlands
Advisor: Prof. Pieter R. Roelfsema
Co-advisor: Dr. Matthew W. Self

08/2010 - 11/2010 Research internship
University of California San Diego (UCSD)
Center for Brain and Cognition, San Diego, CA, USA

01/2010 - 07/2010 Research internship
Harvard Medical School
B.-A. Center for Noninvasive Brain Stimulation, Boston, MA, USA
GPA: 9.5 (1-10 scale), equivalent to A+

09/2008 - 08/2010 MSc, Graduated *Cum Laude*
Maastricht University
Department of Psychology and Neuroscience, Maastricht, the Netherlands
GPA: 8.7 (1-10 scale), equivalent to A+

01/2008 - 06/2008 Graduate and undergraduate elective courses
University of California, Los Angeles (UCLA)
Department of Psychology, Los Angeles, CA, USA
GPA: 3.9 (0-4 scale), equivalent to A

09/2005 - 08/2008 BSc
Maastricht University
Department of Psychology and Neuroscience, Maastricht, the Netherlands
GPA: 7.6 (1-10 scale), equivalent to A

Research grants:

07/2016 - 06/2019: Postdoctoral Fellowship

Title: Flexible routing of information through specialized networks in the brain

Funding agency: Simons Foundation

Program: Simons Collaboration on the Global Brain

PI: Danique Jeurissen

Co-PIs: Michael N. Shadlen and Doris Y. Tsao

Amount: 234k\$

Awards & scholarships:

2014: Best oral presentation award, 21st annual meeting ONWAR graduate school.

2013: Stipend, vision summer school at the Cold Spring Harbor Laboratory (500\$).

2013: Best short oral presentation award, 20th annual meeting ONWAR graduate school.

2012: Student travel award, Vision Science Society Conference (500\$).

2011: Student poster award, 34th European Conference on Visual Perception (500€).

2010: Cum Laude Master of Science degree.

2010: Scholarship, internship at UC San Diego: VSBfonds (6.0k€).

2010: Scholarship, internship at UC San Diego: Prins Bernhard Cultuurfonds (1.0k€).

2010: Scholarship, internship at Harvard Medical School: Stichting Dr Hendrik Mullers Vaderlandsch Fonds (2.5k€).

2010: Scholarship, internship at Harvard Medical School: Schuurman Schimmel- van Outeren Stichting (2.0k€).

2010: Scholarship, internship at Harvard Medical School: Maastricht University, Faculty of Psychology and Neuroscience (1.1k€).

2010: Scholarship, internship at Harvard Medical School: Fundatie van de Vrijvrouwe van Renswoude te Delft (2.0k€).

2008: Scholarship, elective courses at UC Los Angeles: Maastricht University, Faculty of Psychology and Neuroscience (€1.2k).

Selected invited talks:

09/2016: Simons Foundation Annual Meeting, New York, NY, USA

05/2015: New York University, New York, NY, USA

04/2015: Rutgers University, Newark, NJ, USA

08/2014: Salk Institute for Biological Studies, San Diego, CA, USA

08/2014: Stanford University, Stanford, CA, USA

08/2014: California Institute of Technology, Pasadena, CA, USA

08/2014: Columbia University, New York, NY, USA

08/2014: The Nathan S. Kline Institute for Psychiatric Research, Orangeburg, NY, USA

07/2014: New York University, New York, NY, USA

07/2014: Columbia University, New York, NY, USA

07/2014: Rockefeller University, New York, NY, USA

07/2014: Massachusetts Institute of Technology, Cambridge, MA, USA

07/2013: Harvard Medical School, Boston, MA, USA

10/2012: Amsterdam Vision Meeting, Amsterdam, the Netherlands

Additional courses:

2013: Cold Spring Harbor Laboratory, NY, USA

Summer school – Vision: A Platform for Linking Circuits, Perception, and Behavior

2010: ERP Laboratory, UCSD, CA, USA

Graduate Course – Electroencephalography

2010: Center for Noninvasive Brain Stimulation, Boston, MA, USA

Course – Transcranial Magnetic Stimulation

2009: University College London, UK

Summer School – Attention, Perception, and Motor Cognition

Peer reviewing:

- Acta Psychologica;
- Attention, Perception, and Psychophysics;
- Cognitive, Affective, and Behavioral Neuroscience;
- Current Biology;
- Journal of Cognitive Neuroscience;
- Journal of Neuroscience;
- Nature Neuroscience;
- Psychonomic Bulletin and Review;
- Social Cognitive and Affective Neuroscience;
- Visual Cognition;
- Visual Neuroscience.

Teaching:

- 2016: Mentor in the Exceptional Research Opportunities Program (EXROP) at Columbia University. EXROP is a Howard Hughes Medical Institute sponsored program in which undergraduate students gain research experience during a summer internship.
- 2014: Guest-lecture for researchers (level: graduate students to PI) on working with non-human primates in biomedical research in the course 'Laboratory Animal Science'.
- 2011: Guest-lecture for students (level: Master of Science) at VU University about visual perception in their course 'Clinical Neuroscience'.
- 2011 - 2015: Supervising students (level: Bachelor and Master of Science) during their research internship at the Netherlands Institute for Neuroscience.
- 2011 - 2015: Supervising students (level: Bachelor and Master of Science) during practicals at the Netherlands Institute for Neuroscience.
- 2007 - 2008: Teaching assistant for students (level: Bachelor of Science) at Maastricht University in the courses 'Body and Behavior' and 'Programming'.

Selected activities & outreach:

- 06/2016 - present: Member *ChickTech* New York
ChickTech is a nonprofit dedicated to retaining women in the technology workforce and increasing the number of women and girls pursuing technology-based careers. I volunteer for the team that organizes workshops for high-school girls to learn about science, technology, engineering, and math.
- 10/2012 - 06/2015: Organizer and teacher at the *Weekendschool*
Elementary school students from underprivileged neighborhoods in the Netherlands can participate in the supplementary education program 'Weekendschool'. In their yearly course on medical and biological sciences, students visit the Netherlands Institute for Neuroscience for a day to learn about the brain.
- 10/2011: Researcher at the 'Science-fair' at the Academic Medical Center, Amsterdam
Explaining neuroscientific research (techniques / research questions / the work of a scientist) to the general public (aged 1-99).
- 06/2011 - 01/2014: Member Teaching Committee, ONWAR graduate school
I was the PhD-student representative in the graduate school teaching committee to evaluate courses for graduate students.
- 09/2008 - 12/2009: Member Student Council, Maastricht University
During my Master of Science studies I was a member of the student council at Faculty of Psychology and Neuroscience.
- 09/2008 - 09/2009: Member Marble Program, Maastricht University
I was the student-member in the committee that developed the *Maastricht Research Based Learning* (MARBLE) program for undergraduate students.
- 02/2008 - 06/2008: Member *Interaxon*, University of California Los Angeles
During my studies abroad I joined the Interaxon group to organize events and teaching elementary school children about the brain through presentations and games.

Publications:

* = Equal contribution / co-first author

Journal publications - published

1. D. Jeurissen, M.W. Self, and P.R. Roelfsema (2016). Serial grouping of 2D-image regions with object-based attention in humans. *eLife*, 5, e14320.
2. M.W. Self*, J.C. Peters*, J.K. Possel*, J. Reithler, R. Goebel, P. Ris, D. Jeurissen, L. Reddy, S. Claus, J.C. Baayen, and P.R. Roelfsema (2016). The effects of context and attention on spiking activity in human early visual cortex. *PLoS Biology*, 14(3), e1002420.
3. B. Rubio*, A.D. Boes*, S. Laganier, A. Rotenberg, D. Jeurissen, and A. Pascual-Leone (2016). Noninvasive brain stimulation in pediatric attention-deficit hyperactivity disorder (ADHD): A review. *Journal of Child Neurology*, 31(6), 784-796.
4. D. Jeurissen, A.F. Van Ham, and M.W. Self (2015). The neural representation of multiple objects in the primate visual system. *Journal of Neuroscience*, 35(37), 12612-12614.
5. D. Jeurissen, A.T. Sack, A. Roebroek, B.E. Russ, and A. Pascual-Leone (2014). TMS affects moral judgment, showing the role of DLPFC and TPJ in cognitive and emotional processing. *Frontiers in Neuroscience*, 8, 1-9.
6. D. Jeurissen, M.W. Self, and P.R. Roelfsema (2013). Surface reconstruction, figure-ground modulation, and border-ownership. *Cognitive Neuroscience*, 4(1), 50-52.
7. I. Korjoukov, D. Jeurissen, N.A. Kloosterman, J.E. Verhoeven, H.S. Scholte, and P.R. Roelfsema (2012). The time-course of perceptual grouping in natural scenes. *Psychological Science*, 23(12), 1-8.

Journal publications - submitted / in preparation

8. M.W. Self*, D. Jeurissen*, A.F. Van Ham, B. Van Vugt, J. Poort, and P.R. Roelfsema. The segmentation of objects in monkey primary visual cortex.
9. D. Vartak, D. Jeurissen, M.W. Self, and P.R. Roelfsema. The influence of attention and reward on the learning of new stimulus-response associations.
10. P.C. Klink, D. Jeurissen, J. Theeuwes, D. Denys, and P.R. Roelfsema. Working-memory fidelity for multiple targets is driven by reward expectation and stimulus contrast with different time-courses.

Posters, talks, and abstracts

- P.C. Klink, D. Jeurissen, J. Theeuwes, D. Denys, and P.R. Roelfsema [2016 - accepted abstract]. Reward and salience determine the precision of working memory encoding with different time-courses. Poster presentation at the Society for Neuroscience, November 12 - 16, 2016, San Diego, CA, USA.
- D. Jeurissen (2016). Flexible routing of information through specialized networks in the brain. Talk at the Simons Foundation Annual Meeting, September 11 - 13, New York, NY, USA.
- D. Jeurissen, A.F. Van Ham, M.W. Self, and P.R. Roelfsema (2015). The development of figure-ground segregation across time and space in the visual cortex of the macaque monkey. Poster presentation at the Society for Neuroscience, October 17 - 21, 2015, Chicago, IL, USA.
- M.W. Self, D. Jeurissen, A.F. Van Ham, M. Senden, and P.R. Roelfsema (2015). Border-ownership tuning predicts effective connectivity between V4 and V1 in macaque visual cortex. Poster presentation at the Society for Neuroscience, October 17 - 21, 2015, Chicago, IL, USA.

- A.F. Van Ham, M.W. Self, D. Jeurissen, and P.R. Roelfsema (2015). Global scene interpretation affects figure-ground modulation and contrast perception. Poster presentation at the Society for Neuroscience, October 17 - 21, 2015, Chicago, IL, USA.
- D. Jeurissen, M.W. Self, and P.R. Roelfsema (2015). Object-based attention spreads at multiple spatial scales to achieve perceptual grouping. Poster presentation at the Federation of European Neuroscience Societies Brain Conference Meeting on Bridging Neural Mechanisms and Cognition, April 19 - 22, 2015, Rungstedgaard, Denmark.
- D. Jeurissen, M.W. Self, and P.R. Roelfsema (2014). Perceptual organization and object-based attention in the human visual system. Oral presentation at the 21st ONWAR annual meeting, November 27 - 28, 2014, The Netherlands.
- D. Jeurissen, M.W. Self, A.F. van Ham, and P.R. Roelfsema (2014). Figure-ground modulation of Gestalt objects in the visual cortex of the macaque monkey. Poster presentation at the Society for Neuroscience Meeting, November 15 - 19, 2014, Washington, DC, USA.
- D. Jeurissen, M.W. Self, J. Poort, B. van Vugt, and P.R. Roelfsema (2014). Figure-ground modulation for complex shapes in macaque V1. Poster presentation at the Gordon Research Conference on the Neurobiology of Cognition, July 20 - 25, 2014, Newry, ME, USA.
- D. Jeurissen, M.W. Self, and P.R. Roelfsema (2013). Object-based attention spreads at multiple spatial scales. Poster presentation and short oral presentation at the 20th ONWAR annual meeting, November 28 - 29, 2013, The Netherlands.
- D. Jeurissen, M.W. Self, and P.R. Roelfsema (2013). Object based attention spreads at multiple spatial scales. Poster presentation at the Donders Discussions Meeting, October 31 - November 1, 2013, Nijmegen, The Netherlands.
- D. Jeurissen*, M.W. Self*, J. Poort, B. van Vugt, and P.R. Roelfsema (2012). Figure-ground modulation in the primary visual cortex of the macaque monkey. Poster presentation at the 19th ONWAR annual meeting, November 22 - 23, 2012, The Netherlands.
- D. Jeurissen*, M.W. Self*, J. Poort, B. van Vugt, and P.R. Roelfsema (2012). Figure-ground modulation for complex shapes in the primary visual cortex of the macaque monkey. Poster presentation at the Society for Neuroscience, October 13 - 17, 2012, New Orleans, LA, USA.
- D. Jeurissen and P.R. Roelfsema (2012). Image Parsing, From Curves to Natural Images. Oral presentation at the Vision Science Society Conference, May 11-16, 2012, Naples, FL, USA.
- D. Jeurissen, I. Korjoukov, N.A. Kloosterman, H.S. Scholte, and P.R. Roelfsema (2011). Object Recognition and Image Parsing. Poster presentation at the 18th ONWAR annual meeting, November 24 - November 25, 2011, The Netherlands.
- D. Jeurissen, I. Korjoukov, N.A. Kloosterman, H.S. Scholte, and P.R. Roelfsema (2011). Object Recognition and Image Parsing of Natural Images. Poster presentation at the 34th European Conference on Visual Perception, August 28 - September 1, 2011, Toulouse, France.
- D. Jeurissen, A.T. Sack, A. Roebroek, and A. Pascual-Leone (2010). The brain connectivity network underlying moral judgment. Poster presentation at the Federation of European Neuroscience Societies 7th Forum of European Neuroscience, July 3 - 7, 2010, Amsterdam, The Netherlands.
- M. Capalbo, A. Roebroek, D. Jeurissen, and R. Goebel (2009). Assessing Fiber-Tracking Reliability in Diffusion Imaging by Combining Inter- and Intra-Subject Variability. Poster presentation at the 15th Annual Meeting of the Organization for Human Brain Mapping, June 18 - 23, 2009, San Francisco, CA, USA.