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PERSONAL DETAILS

Date of birth: 18 May 1984
Place of birth: Groningen, The Netherlands
Nationality: Dutch
Gender: Male
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ACADEMIC POSITIONS

2017 – Post-doctoral researcher
Department of Psychology, Yale University
Supervisor: Prof. Nicholas Turk-Browne

2016 – 2017 Post-doctoral researcher
Princeton Neuroscience Institute, Princeton University
Supervisor: Prof. Nicholas Turk-Browne

2013 – 2016 Post-doctoral researcher
Donders Institute for Brain, Cognition and Behaviour, Radboud University Nijmegen
Supervisor: Dr. Floris de Lange

EDUCATION

2009 – 2013 PhD in Cognitive Neuroscience (cum laude, awarded to best 5% of theses)
Radboud University Nijmegen, The Netherlands

2007 – 2009 Research Master's degree Behavioural and Cognitive Neuroscience (cum laude)
University of Groningen, The Netherlands

2006 – 2007 Bachelor's degree Philosophy of a specific discipline
University of Groningen, The Netherlands

2003 – 2007 Bachelor's degree Psychology
University of Groningen, The Netherlands

2001 – 2003 Propaedeutics degree Computing Science
University of Groningen, The Netherlands

GRANTS AND AWARDS

2015 – 2017 Netherlands Organisation for Scientific Research (NWO)
Rubicon grant for postdoctoral research outside of The Netherlands [€134,764]

2015 Dutch Neurofederation
Award for best PhD thesis in the field of neuroscience in The Netherlands

2014 Donders Institute
Paper award for high-impact publication

- 2012 Radboud University Internationalisation Fund
Travel award to attend Society for Neuroscience meeting
- 2012 Donders Institute
Paper award for high-impact publication
- 2011 Radboud University Internationalisation Fund
Travel award to attend Society for Neuroscience meeting
- 2010 Organization for Human Brain Mapping
Travel award for Human Brain Mapping meeting

PUBLICATIONS

- Kok, P., Mostert, P. & De Lange, F.P. (2017). Prior expectations induce pre-stimulus sensory templates. *Proceedings of the National Academy of Sciences*, in press. Manuscript available on *bioRxiv*: <https://doi.org/10.1101/119073>.
- Ekman, M., Kok, P., & De Lange, F.P. (2017). Time-compressed preplay of anticipated events in human primary visual cortex. *Nature Communications* 8, 15276.
- Kok, P., Bains, L.J., Van Mourik, T., Norris, D.G., & De Lange, F.P. (2016). Selective activation of the deep layers of the human primary visual cortex by top-down feedback. *Current Biology* 26, 371-376.
- Kok, P., Van Lieshout, L.L.F., & De Lange, F.P. (2016). Local expectation violations result in global activity gain in primary visual cortex. *Scientific Reports* 6, 37706.
- Kok, P. (2016). Perceptual inference: A matter of predictions and errors. *Current Biology* 26, R809-811.
- St. John-Saaltink, E., Kok, P., Lau, H.C., & De Lange, F.P. (2016). Serial dependence in perceptual decisions is reflected in activity patterns in primary visual cortex. *Journal of Neuroscience* 36, 6186-6192.
- Mostert, P., Kok, P., & De Lange, F.P. (2015). Dissociating sensory from decision processes in human perceptual decision making. *Scientific Reports* 5, 18253.
- Pajani, A., Kok, P., Kouider, S., & De Lange, F.P. (2015). Spontaneous activity patterns in primary visual cortex predispose to visual hallucinations. *Journal of Neuroscience* 35, 12947-12953.
- St. John-Saaltink, E., Utzerath, C., Kok, P., Lau, H.C., & De Lange, F.P. (2015). Expectation suppression in early visual cortex depends on task set. *PLoS ONE* 10, 6.
- Kok, P., & De Lange, F.P. (2015). Predictive coding in sensory cortex. In B.U. Forstmann and E.-J. Wagenmakers (Eds.), *An Introduction to Model-Based Cognitive Neuroscience* (pp. 221-244). New York: Springer.
- Francken, J.C., Kok, P., Hagoort, P., & De Lange, F.P. (2015). The behavioral and neural effects of language on motion perception. *Journal of Cognitive Neuroscience* 27, 175-184.
- Kok, P., & De Lange, F.P. (2014). Shape perception simultaneously increases and reduces activity in early visual cortex. *Current Biology* 24, 1531-1535.
- Kok, P., Failing, F.M., & De Lange, F.P. (2014). Prior expectations evoke stimulus templates in the primary visual cortex. *Journal of Cognitive Neuroscience* 26, 1546-1554.
- Kok, P., Brouwer, G.J., Van Gerven, M.A.J., & De Lange, F.P. (2013). Prior expectations bias sensory representations in visual cortex. *Journal of Neuroscience* 33, 16275-16284.

Albers, A.M., Kok, P., Toni, I., Dijkerman, H.C., & De Lange, F.P. (2013). Shared representations for working memory and mental imagery in early visual cortex. *Current Biology* 23, 1-5.

Rahnev, D., Kok, P., Munneke, M., Bahdo, L., De Lange, F.P., & Lau, H.C. (2013). Continuous theta burst transcranial magnetic stimulation reduces resting state connectivity between visual areas. *Journal of Neurophysiology* 110, 1811-1821.

Kok, P., Jehee, J.F.M., & De Lange, F.P. (2012). Less is more: Expectation sharpens representations in the primary visual cortex. *Neuron* 75, 265-270.

Kok, P., Rahnev, D., Jehee, J.F.M., Lau, H.C., & De Lange, F.P. (2012). Attention reverses the effect of prediction in silencing sensory signals. *Cerebral Cortex* 22, 2197-2206.

Den Ouden, H.E.M., Kok, P., & De Lange, F.P. (2012). How prediction errors shape perception, attention and motivation. *Frontiers in Psychology* 3, 548.

Van Gerven, M.A.J., Kok, P., De Lange, F.P., & Heskes, T. (2011). Dynamic decoding of ongoing perception. *NeuroImage* 57, 950-957.

INVITED TALKS

- 2017 Faculty of Psychology and Educational Sciences, KU Leuven, Belgium
- 2016 Kastner Lab Meeting, Princeton Neuroscience Institute, Princeton, NJ
- 2016 Niv Lab Meeting, Princeton Neuroscience Institute, Princeton, NJ
- 2016 Spinoza Centre for Neuroimaging, Amsterdam, The Netherlands
- 2015 Brain and Consciousness Lab Meeting, Ecole Normale Supérieure, Paris, France
- 2015 EPOS Summer School: The Predictive Brain, Amsterdam, The Netherlands
- 2015 Plenary lecture in the context of Dutch Neurofederation PhD Thesis Prize, Dutch Neuroscience Meeting, Lunteren, The Netherlands
- 2014 Repetition Suppression Summer School, Friedrich Schiller University, Jena, Germany
- 2014 Symposium "The Interplay of Attention and Prediction in the Human Brain", International Conference on Cognitive Neuroscience, Brisbane, Australia
- 2013 Prediction in Audition Workshop, Leipzig University, Leipzig, Germany

SELECTED CONFERENCE PRESENTATIONS

Kok, P., & Turk-Browne, N.B. (2017). The hippocampus as a source of sensory predictions. Talk presented at *Manhattan Area Memory Meeting*, New York, NY.

Kok, P., & Turk-Browne, N.B. (2017). Prediction facilitates complex shape processing in visual cortex. Talk presented at *Vision Sciences Society*, St. Pete Beach, FL.

Kok, P., Mostert, P., & De Lange, F.P. (2016). Prior expectations induce pre-stimulus sensory templates. Poster presented at *Society for Neuroscience*, San Diego, LA.

Kok, P., Bains, L.J., Van Mourik, T., Norris, D.G., & De Lange, F.P. (2015). Illusory figures selectively activate deep layers of the primary visual cortex: a 7T-fMRI study. Talk presented at *Society for Neuroscience*, Chicago, IL.

Kok, P., & De Lange, F.P. (2014). Shape perception simultaneously up- and down-regulates neural activity in the primary visual cortex. Talk presented at *Association for the Scientific Study of Consciousness*, Brisbane, Australia.

Kok, P., Van Gerven, M.A.J., Brouwer, G.J., & De Lange, F.P. (2012). Prior expectation biases sensory representation in visual cortex. Poster presented at *Society for Neuroscience*, New Orleans, LA.

Kok, P., Jehee, J.F.M., & De Lange, F.P. (2011). Prediction reduces neural response amplitude, but enhances stimulus representation in early visual cortex. Talk presented at *Society for Neuroscience*, Washington, DC.

Kok, P., Jehee, J.F.M., & De Lange, F.P. (2011). Prediction reduces neural activity but enhances stimulus representation in V1. Poster presented at *International Conference on Cognitive Neuroscience*, Mallorca, Spain.

Kok, P., Rahnev, D., Jehee, J.F.M., Lau, H., & De Lange, F.P. (2010). Interaction between prediction and attention in early visual cortex. Poster presented at *Forum of European Neuroscience*, Amsterdam, The Netherlands.

Kok, P., Rahnev, D., Jehee, J.F.M., Lau, H., & De Lange, F.P. (2010). Interaction between prediction and attention in early visual cortex. Poster presented at *Human Brain Mapping*, Barcelona, Spain.

Kok, P., & Jolij, J. (2009). Superstitious perception of complex figures. Poster presented at *Endo-Neuro-Psycho Meeting*, Doorwerth, The Netherlands.

AD HOC REVIEWER

Attention, Perception & Psychophysics | Brain Research | Cerebral Cortex | Consciousness and Cognition | Cortex | Current Biology | Current Directions in Psychological Science | eLife | Frontiers in Psychology | Human Brain Mapping | Journal of Cognitive Neuroscience | Journal of Neuroscience | NeuroImage | PLOS Biology | PLOS Computational Biology | PLOS ONE | Proceedings of the Royal Society B | Psychonomic Bulletin & Review | Scientific Reports

TEACHING

Lecture and Tutorial on Predictive Coding at the EPOS Summer School: The Predictive Brain (2015), Amsterdam, The Netherlands

Lecture at the Repetition Suppression Summer School (RESUS) (2014), Friedrich Schiller University Jena, Germany.

Tutorial at the Practical data analysis and modeling in cognitive and clinical neuroscience Training School (2014), University of Ghent, Belgium.

Lecture on Multivariate fMRI applications at the Donders Toolkit of Cognitive Neuroscience, advanced course in functional imaging methods (2013).

Tutorial on Dynamic Causal Modelling at the Donders Toolkit of Cognitive Neuroscience, advanced course in functional imaging methods (2012).

Teaching assistant, Statistics course for first year Psychology Bachelor (2005 – 2007), University of Groningen, The Netherlands.

MENTORING

Pim Mostert, PhD student (co-supervisor, 2014 – present).

Jarryd Osborne, undergraduate student (co-supervisor, 2016 – 2017).

Lieke van Lieshout, MSc student (supervisor, 2014 – 2015). Resulted in publication in Scientific Reports, Lieke went on to become a PhD student at the Radboud University Nijmegen, The Netherlands.

Michel Failing, MSc student (supervisor, 2011 – 2012). Resulted in publication in Journal of Cognitive Neuroscience, Michel went on to become a PhD student at the VU University Amsterdam, The Netherlands.

TECHNICAL SKILLS

fMRI, MEG, EEG, TMS, DCM, Matlab, Python, Psychtoolbox, SPM, FSL, Fieldtrip, EEGLab, SPSS, Adobe Illustrator

LANGUAGES

Dutch (fluent), English (fluent), German (moderate)