

## Prof. Dr. Guido Hesselmann

### Peer-Review-Publikationen (Daten zu manchen Studien unter <https://osf.io/we29z/>)

Darcy, N., Sterzer, P., & **Hesselmann**, G. (in press at NeuroImage) Category-selective processing in the two visual pathways as a function of visibility. doi: 10.1016/j.neuroimage.2018.12.036

Moors, P., & **Hesselmann**, G. (under press at Consciousness and Cognition). Assessing the robustness of unconscious arithmetic: A multiverse analysis of Karpinski, Briggs, and Yale.

**Hesselmann**, G., Darcy, N., Rothkirch, M., & Sterzer, P. (2018) Investigating masked priming along the "vision-for-perception" and "vision-for-action" dimensions of unconscious processing. Journal of Experimental Psychology: General. doi: 10.1037/xge0000420.

Owens, D.A., **Hesselmann**, G., & Bachman, T. (2018). Foreword: Visual experience and guidance of action: A tribute to Bruce Bridgeman. Consciousness and Cognition. doi: 10.1016/j.concog.2018.08.002.

Rothkirch, M., & **Hesselmann**, G. (2018). No evidence for dorsal-stream-based priming under continuous flash suppression. Consciousness and Cognition. doi: 10.1016/j.concog.2018.05.011

**Hesselmann**, G. (2018) Applying linear mixed effects models (LMMs) in within-participant designs with subjective trial-based assessments of awareness – a caveat. Frontiers in Psychology. doi:10.3389/fpsyg.2018.00788

Rothkirch, M., Overgaard, M., & **Hesselmann**, G. (2018) Editorial: Transitions between consciousness and unconsciousness. Frontiers in Psychology (Consciousness Research). doi:10.3389/fpsyg.2018.00020

Moors, P., **Hesselmann**, G., Wagemans, J., & van Ee, R. (2017) Continuous flash suppression – stimulus fractionation rather than integration. Trends in Cognitive Sciences 21:719–721.

Moors, P., & **Hesselmann**, G. (2017) A critical reexamination of doing arithmetic nonconsciously. Psychonomic Bulletin & Review. doi: 10.3758/s13423-017-1292-x

Kerr\*, J., **Hesselmann**\*, G., Råling, R., Wartenburger, I., & Sterzer, P. (2017) Choice of analysis pathway dramatically affects statistical outcomes in breaking continuous flash suppression. Scientific Reports 7. doi:10.1038/s41598-017-03396-3. (\* equal contribution)

Weilhammer, V., Stuke, H., **Hesselmann**, G., & Sterzer, P. (2017) A predictive coding account of bistable perception – a model-based fMRI study. PLOS Computational Biology. doi: 10.1371/journal.pcbi.1005536

Rothkirch, M., & **Hesselmann**, G. (2017) What we talk about when we talk about unconscious processing – a plea for best practices. Frontiers in Psychology (Consciousness Research). doi: 10.3389/fpsyg.2017.00835

Ludwig, K., Sterzer, P., & **Hesselmann**, G. (2016). Stimulus visibility differentially modulates response patterns in dorsal and ventral visual stream. Cortex 83:113-23.

Weilhammer, V., Sterzer, P., & **Hesselmann**, G. (2016) Perceptual stability of the Lissajous figure is modulated by the speed of illusory rotation. *PlosONE* 11: e0160772.

**Hesselmann**\*, G., Darcy\*, N., Ludwig, K., & Sterzer, P. (2016) Priming in a shape task but not in a category task under continuous flash suppression. *Journal of Vision* 16:17. (\* equal contribution)

Stein, T., Kaiser, D., & **Hesselmann**, G. (2016) Can working memory be non-conscious? *Neuroscience of Consciousness* 1:1-3.

**Hesselmann**, G., & Moors, P. (2015) Definitely maybe - Can unconscious processes perform the same functions as conscious processes? *Frontiers in Psychology (Consciousness Research)*. doi: 10.3389/fpsyg.2015.00584

Ludwig, K., & **Hesselmann**, G. (2015) Weighing the evidence for a dorsal processing bias under continuous flash suppression. *Consciousness & Cognition* 35:251-259.

**Hesselmann**, G., Darcy, N., Sterzer, P., & Knops, A. (2015). Exploring the boundary conditions of unconscious numerical priming effects with continuous flash suppression. *Consciousness & Cognition* 31:60-72.

Ludwig, K., Kathmann, N., Sterzer, P., & **Hesselmann**, G. (2015). Investigating category- and shape-selective neural processing in ventral and dorsal visual stream under interocular suppression. *Human Brain Mapping* 36:137-149.

Lev, M., Ludwig, K., Gilaie-Dotan, S., Voss, S., Sterzer, P., **Hesselmann**, G., & Polat, U. (2014) Training improves visual processing speed and generalizes to untrained functions. *Scientific Reports* 4:7251.

**Hesselmann**, G., & Knops, A. (2014). No conclusive evidence for numerical priming under interocular suppression. *Psychological Science* 25:2116-2119.

Sterzer, P., Stein, T., Rothkirch, M., Ludwig, K. & **Hesselmann**, G. (2014). Visual information processing under interocular suppression: A critical review. *Frontiers in Psychology (Consciousness Research)*. doi: 10.3389/fpsyg.2014.00453

Weilhammer, V. A., Ludwig, K., Sterzer, P., & **Hesselmann**, G. (2014). Revisiting the Lissajous figure as a tool to study bistable perception. *Vision Research* 98:107-12.

Ludwig, K., Kathmann, N., Sterzer, P., Franz\*, V.H., **Hesselmann**\*, G. (2013). Learning to detect but not to grasp suppressed visual stimuli. (\* equal contribution) *Neuropsychologia* 51: 2930-2938.

Weilhammer, V. A., Ludwig, K., Sterzer, P.\* & **Hesselmann**\*, G. (2013). Fronto-parietal cortex mediates perceptual transitions in bistable perception. (\* equal contribution) *Journal of Neuroscience* 33: 16009-16015.

**Hesselmann**, G. (2013) Dissecting visual awareness with fMRI. *The Neuroscientist* 19, 495-508.

Salomon, R., Lim, M., Herbelin, B., **Hesselmann**, G., & Blanke, O. (2013). Feel Me, See me: Proprioception affects visual awareness. *Journal of Vision* 13, 1-8.

**Hesselmann**, G., Naccache, L., Cohen, L., & Dehaene, S. (2013) Splitting of the P3 component during dual-task processing in a patient with posterior callosal section. *Cortex* 49, 730-747.

- Gauthier, B., Eger, E., **Hesselmann**, G., Giraud, A.-L., & Kleinschmidt, A. (2012) Temporal tuning properties along the human ventral visual stream. *Journal of Neuroscience* 32, 14433-14441.
- Dirnberger, G., **Hesselmann**, G., Roisner, J., Preminger, S., Malach, R., Jahanshahi, M., & Paz, R. (2012) Effects of emotion on time perception: An fMRI study. *NeuroImage* 63, 591-599.
- Hebart, M., & **Hesselmann**, G. (2012) What visual information is processed in the human dorsal stream? *Journal of Neuroscience* 32, 8107-8109.
- Ovadia-Caro, S., Nir, Y., Soddu, A., Ramot, M., **Hesselmann**, G., Vanhauzenhuyse, A., Dinstein, I., Tshibanda, JF.-L., Boly, M., Harel, M., Laureys, S., & Malach, R. (2012) Decreased inter-hemispheric correlations in patients with disorders of consciousness: an fMRI study. *PLOS One* 7, e37238.
- Niedeggen, M., Michael, L., & **Hesselmann**, G. (2012) Closing the gates to consciousness: Distractors activate a central inhibition process. *Journal of Cognitive Neuroscience* 24, 1294-12304.
- Hesselmann**, G., Hebart, M., & Malach, R. (2011) Differential BOLD activity associated with subjective and objective reports during "blindsight" in normal observers. *Journal of Neuroscience* 31, 12936-12944.
- Michael, L., **Hesselmann**, G., Kiefer, M., & Niedeggen, M. (2011) Distractor-induced blindness for orientation changes and coherent motion. *Vision Research* 51, 1781-1787.
- Hesselmann**, G., & Malach, R. (2011) The link between fMRI-BOLD activation and perceptual awareness is 'stream-invariant' in the human visual system. *Cerebral Cortex* 21, 2829-2837.
- Hesselmann**, G., Flandin, G., & Dehaene, S. (2011) Probing the cortical network underlying the psychological refractory period: a combined EEG-fMRI study. *NeuroImage* 56, 1608-1621.
- Sadaghiani, S., **Hesselmann**, G., Friston, K.J., & Kleinschmidt, A. (2010) The relation of ongoing brain activity, evoked neural responses, and cognition. *Frontiers in Systems Neuroscience* 4, 1-14.
- Hesselmann**\*, G., Sadaghiani\*, S., Friston, K.J., & Kleinschmidt, A. (2010) Predictive coding or evidence accumulation? False inference and neuronal fluctuations. *PLoS ONE* 5, e9926. (\* equal contribution)
- Hesselmann**, G., Allan, J.L., Sahraie, A., Milders, M., & Niedeggen, M. (2009) Inhibition related reductions in coherent motion perception in the attention-induced motion blindness paradigm. *Spatial Vision* 22, 493-509.
- Sadaghiani, S., **Hesselmann**, G., & Kleinschmidt, A. (2009) Detection of near-threshold auditory stimuli depends on spontaneous activity in the default mode and dorsal attention networks. *Journal of Neuroscience* 29, 13410-13417.
- Hesselmann**, G., Kell, C.A., & Kleinschmidt, A. (2008) Ongoing activity fluctuations in hMT+ bias the perception of coherent visual motion. *Journal of Neuroscience* 28, 14481-14485.
- Hesselmann**, G., Kell, C.A., Eger, E., & Kleinschmidt, A. (2008) Spontaneous local variations in ongoing neural activity bias perceptual decisions. *PNAS* 105, 10984-10989.
- Alonso-Prieto, E., Barnikol, U.B., Palmero-Soler, E., Dolan, K., **Hesselmann**, G., Mohlberg, H., Amunts, K., Zilles, K., Niedeggen, M., & Tass, P.A. (2007) Timing of V1/V2 and V5+ activations during coherent motion of dots: an MEG study. *NeuroImage* 37, 1384-1395.

**Hesselmann, G., Niedeggen, M., Sahraie, A., & Milders, M. (2006)** Specifying the distractor inhibition account of attention-induced motion blindness. *Vision Research* 46, 1048-1056.

Niedeggen, M., **Hesselmann, G., Sahraie, A., Milders, M., & Blakemore, C. (2006)** ERPs predict the appearance of visual stimuli in a temporal selection task. *Brain Research* 1097, 205-215.

Niedeggen, M., **Hesselmann, G., Sahraie, A., Milders, M., & Blakemore, C. (2004)** Probing the prerequisites for motion blindness. *Journal of Cognitive Neuroscience* 16, 584-597.

Niedeggen, M., Sahraie, A., **Hesselmann, G., Milders, M., & Blakemore, C. (2002)** Is experimental motion blindness due to sensory suppression? An ERP approach. *Cognitive Brain Research* 13, 241-247.

## Andere Publikationen, Medien und Populärwissenschaft

Madipakkam, A.R., Ludwig, K., Rothkirch, M., & **Hesselmann, G. (2015)**. Now you see it - now you don't: Interacting with invisible objects. *Frontiers for Young Minds*.

<https://blogs.scientificamerican.com/frontiers-for-young-minds/now-you-see-it-now-you-don-t-interacting-with-invisible-objects/>

<https://retractionwatch.com/2017/05/08/can-math-unconsciously-replicators-prominent-2012-study-doubts/>

<http://www.dalmeets.com/single-post/2017/05/18/We-May-Not-Be-Able-To-Do-Math-Unconsciously-After-All>

"Netzwerkgeflüster – Was das Gehirn in Ruhe bewegt" (The brain at rest). Radio interview on spontaneous brain activity (motion coherence experiment). Deutschlandfunk, Wissenschaft im Brennpunkt. Radio program by Martin Hubert. Broadcast 13.05.2010.

"Standby im Kopf" (The brain's standby). Radio interview on spontaneous brain activity (Rubin vase face experiment). Deutschlandfunk, Forschung Aktuell. Radio program by Jan Lublinski. Broadcast 29.07.2008.

## Deutsche Veröffentlichungen

Knops, A., Busch, N., **Hesselmann, G., Vo, M., Ohla, K., Niedeggen, M., Rüsseler, J., & Schubert, T. (2016)** Diskussionsbeitrag zum Positionspapier der FG Allgemeine Psychologie zur Lage der Allgemeinen Psychologie.

**Hesselmann, G. (2014)** Neurokognition des bewussten und unbewussten Sehens. Freie Universität Berlin. (Habilitation)

**Hesselmann, G. (2005)** Psychophysische und psychophysiologische Untersuchungen zur Wirkung von Distraktoren im Paradigma der experimentell induzierten Bewegungsblindheit. Heinrich Heine Universität Düsseldorf. (PhD thesis)

**Hesselmann, G. (2001)** Visuelle Suche in einer schnellen seriellen Reizsequenz: Psychophysische Untersuchungen zur limitierten Aufmerksamkeitskapazität. Heinrich Heine Universität Düsseldorf. (Diploma thesis).