

Curriculum Vitae

Name: Marco André Hirnstein
Date of Birth: 29/01/1980
Nationality: German
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Employment

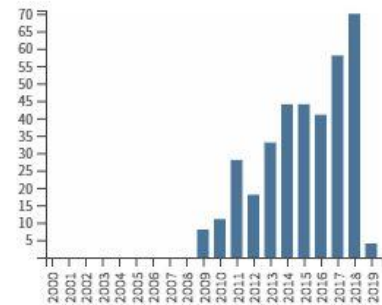
01/2016 - Researcher at University of Bergen, Norway. Leader of the research group FLaSH ([ForskningsLab for Stimulering av Hjernen](#))
07/2015 - 12/2015 Stand-in lecturer at University of Bergen.
04/2011 - 06/2015 Postdoctoral research fellow at University of Bergen.
06/2014 - 12/2014 Guest researcher at University of Wisconsin-Madison, USA.
07/2009 - 04/2011 Postdoctoral research fellow at Durham University, UK.
04/2009 - 06/2009 Research associate at the Bergen fMRI Group, University of Bergen, Norway.

Education

2016 Habilitation at Ruhr-University Bochum, Germany (i.e., post-doctoral qualification to independently teach and examine a designated subject at university level)
04/2007 - 01/2010 PhD student at Durham University. Thesis: 'Evolutionary advantages of human hemispheric asymmetries'.
10/2005 - 04/2007 PhD student at the Institute of Cognitive Neuroscience, Ruhr-University Bochum, Germany.
05/2006 - 04/2007 Initial training to become a clinical psychologist at the Institut für Psychologische Psychotherapie, Bochum, Germany.
09/2000 - 09/2005 Diploma (=equivalent to MSc) in Psychology ('with distinction') at Ruhr-University Bochum.

Publications

In total, I have authored 31 scientific publications, of which 24 are peer-reviewed. These include 15 first authorships and seven “nivå 2 tidskrifter”. According to ISI Web of Knowledge, I have an h-index of 13 and, as per January 2019, my work has been cited 359 times.



Number of citations by year

Peer-reviewed:

Larøi, F., Bless, J. J., Laloyaux, J., Kråkvik, B., Vedul-Kjelsås, E., Kalthovde, A. M., **Hirnstein, M.**, & Hugdahl, K. (2019). An epidemiological

study on the prevalence of hallucinations in a general-population sample: Effects of age and sensory modality. *Psychiatry Research*, 272, 707-714. doi: <https://doi.org/10.1016/j.psychres.2019.01.003>

Dwyer, G. E., Craven, A. R., **Hirnstein, M.**, Kompus, K., Assmus, J., Erslund, L., . . . Grüner, R. (2019). No Effects of Anodal tDCS on Local GABA and Glx Levels in the Left Posterior Superior Temporal Gyrus. *Frontiers in Neurology*, 9(1145). doi: 10.3389/fneur.2018.01145

Hirnstein, M., Hugdahl, K., & Hausmann, M. (2019). Cognitive sex differences and hemispheric asymmetry: A critical review of 40 years of research. *Laterality: Asymmetries of Body, Brain and Cognition*, 24(2), 204-252. doi: 10.1080/1357650X.2018.1497044.

Hausmann, M., Brysbaert, M., Van der Haegen, L., Lewald, J., Specht, K., **Hirnstein, M.**, Willemin, J., Barton, J., Buchilly, D., Chmetz, F., Roch, M., Brederoo, S., Dael, N., & Mohr, C. (2019). Language lateralisation measured across linguistic and national boundaries. *Cortex*, 111, 134-147. doi: <https://doi.org/10.1016/j.cortex.2018.10.020>.

Hirnstein, M., Larøi, F., & Laloyaux, J. (2018). No sex difference in an everyday multitasking paradigm. *Psychological Research*. doi: 10.1007/s00426-018-1045-0

Hjelmervik, H., Hausmann, M., **Hirnstein, M.**, Craven, A. R., Hugdahl, K., & Specht, K. (2018). Sex- and sex hormone-related variations in energy-metabolic frontal brain asymmetries: A magnetic resonance spectroscopy study. *Neuroimage*, 172, 817-825. doi: <https://doi.org/10.1016/j.neuroimage.2018.01.043>

Ocklenburg, S., Güntürkün, O., Hugdahl, K. & **Hirnstein, M.** (2015). Laterality and mental disorders in the postgenomic age – A closer look at schizophrenia and language lateralization. *Neuroscience & Biobehavioral Reviews*, 59, 100-110.

Hjelmervik, H., Westerhausen, R. **Hirnstein, M.**, Specht, K., & Hausmann, M. (2015). The neural correlates of sex differences in left-right confusion. *Neuroimage*, 113, 196-206.

Hirnstein, M., & Hugdahl, K. (2014). The excess of non-right-handedness in schizophrenia: A meta-analysis of sex effects and potential biases in handedness assessment. *British Journal of Psychiatry*, 205(4), 260-267.

Hirnstein, M., Coloma Andrews L., & Hausmann, M. (2014). Gender-stereotyping and cognitive sex differences in mixed- and same-sex groups. *Archives of Sexual Behavior*, 43, 1663-1673.

- Hirnstein, M.**, Hugdahl, K., & Hausmann, M. (2014). How brain asymmetry relates to performance – a large-scale dichotic listening study. *Frontiers in Psychology*, 4. doi: 10.3389/fpsyg.2013.00997.
- Hirnstein, M.**, Westerhausen, R., Korsnes, M. S., & Hugdahl, K. (2013). Sex differences in language asymmetry are age-dependent and small: A large-scale, consonant vowel dichotic listening study with behavioral and fMRI data. *Cortex*, 49, 1910-1921.
- Ocklenburg, S., Westerhausen, R., **Hirnstein, M.**, & Hugdahl, K. (2013). Auditory hallucinations and reduced language lateralization in schizophrenia: A meta-analysis of dichotic listening studies. *Journal of the International Neuropsychological Society*, 19, 410-418.
- Hirnstein, M.**, Westerhausen, R., & Hugdahl, K. (2013). The right planum temporale is involved in stimulus-driven, auditory attention – evidence from transcranial magnetic stimulation. *PLoS ONE*, 8(2): e57316. doi: 10.1371/journal.pone.0057316.
- Alba-Ferrara, L., De Erausquin, G. A., **Hirnstein, M.**, Weis, S., & Hausmann, M. (2013). Emotional prosody modulates attention in schizophrenia patients with hallucinations. *Frontiers in Human Neuroscience*, 7, 59. doi: 10.3389/fnhum.2013.00059.
- Hirnstein, M.**, Freund, N., & Hausmann, M. (2012). Gender stereotyping enhances verbal fluency performance in men (and women). *Zeitschrift für Psychologie/Journal of Psychology*, 220(2), 70-77.
- Hirnstein, M.** (2011). Dichotic listening and left right confusion *Brain and Cognition*, 76, 239-244.
- Ocklenburg, S., **Hirnstein, M.**, Ohmann, H., & Hausmann, M. (2011). Mental rotation does not account for sex differences in left-right confusion. *Brain and Cognition*, 76, 166-171.
- Hirnstein, M.**, Bayer, U., Ellison, A., & Hausmann, M. (2011). TMS over the left angular gyrus impairs the ability to discriminate left from right. *Neuropsychologia*, 49, 29-33.
- Hirnstein, M.**, Leask, S., Rose, J., & Hausmann, M. (2010). Disentangling the relationship between hemispheric asymmetry and cognitive performance. *Brain and Cognition*, 73, 119-127.
- Ocklenburg, O., **Hirnstein, M.**, Hausmann, M., & Lewald, J. (2010). Auditory space perception in left and right-handers. *Brain and Cognition*, 72, 210-217.
- Hirnstein, M.**, Bayer, U., & Hausmann, M. (2009). Sex-specific response strategies in mental rotation. *Learning and Individual Differences*, 19, 225-228.
- Hirnstein, M.**, Ocklenburg, S., Schneider, D., & Hausmann, M. (2009). Sex differences in left-right confusion depend on hemispheric asymmetry. *Cortex*, 45, 891-899.
- Hirnstein, M.**, Hausmann, M., & Güntürkün, O. (2008). The evolutionary origins of functional cerebral asymmetries in humans: Does lateralization enhance parallel processing? *Behavioural Brain Research*, 187, 297-303.
- Hirnstein, M.**, Lewald, J., & Hausmann, M. (2007). Functional cerebral asymmetry in auditory motion perception. *Laterality: Asymmetries of Body, Brain and Cognition*, 12, 87-99.

Non peer-reviewed/book sections:

- Laloyaux, J., Larøi, F., & **Hirnstein, M.** (2018). Research: Women and Men Are Equally Bad at Multitasking. Harvard Business Review. Retrieved from

<https://hbr.org/2018/09/research-women-and-men-are-equally-bad-at-multitasking>.

Hirnstein, M. (2018). Stress og kjønn. In T. R. Rogg Korsvik & L. M. Rustad (Eds.), *Hva er kjønnsperspektiver i forskning? Eksempler fra tverrfaglige forskningsområder* – Håndboka fra Kilden/Norges forskningsråd. (pp. 10-11). Lysaker: Kilden kjønnsforskning.

Hirnstein, M. (2018). Lateralized brain functions—methods in human and non-human species [Review of the book *Lateralized brain functions—methods in human and non-human species*, by L. Rogers & G. Vallortigara]. *Laterality: Asymmetries of Body, Brain and Cognition*, 23(3), 377-379. doi: 10.1080/1357650X.2017.1368532.

Hirnstein, M., Johnsen, E., Marquardt, L., Hugdahl, K., Güntürkün, O., & Ocklenburg, S. (2016). Lateralisering og schizofreni I den postgenomiske æra – en symptombasert tilnærming. *BestPractice Psykiatri/Nevrologi*, 28, 22-26.

Ocklenburg, S., **Hirnstein, M.**, Beste, C., & Güntürkün, O. (2014). Lateralization and cognitive systems. *Frontiers in Psychology*, 5, doi: 10.3389/fpsyg.2014.01143.

Hugdahl, K. & **Hirnstein, M.** (2013). Cerebral hemispheres: Behavior and imaging studies. In S. P. Koffler, J. E. Morgan, I. S. Baron, & M. F. Greiffenstein (Eds.), *Neuropsychology: science and practice* (pp. 95-113). New York: Oxford University Press.

Hirnstein, M., & Hausmann, M. (2010). Kognitive Geschlechtsunterschiede. In G. Steins (Ed.), *Handbuch Psychologie und Geschlechterforschung* (pp. 69-85). Wiesbaden: VS Verlag.

Awards, Grants & Studentships

- 2016 Sole PI of research grant: 'Transcranial brain stimulation and its underlying neural mechanisms as a novel treatment for auditory hallucinations' (Bergen Research Foundation). Ca. 20.000.000 NOK
- 2014 Sole recipient of networking grant: 'Strategic Programme for International Research and Education' (University of Bergen) to organize an international symposium. Ca. 100.000 NOK
- 2009 Sole PI of research grant: 'A biopsychosocial approach to cognitive sex differences in left-right confusion' (HI 1496/1-1, German Research Association). Ca. €56.000
- 2007– Sole recipient of various travel grants and studentships for research visits, attending conferences and an fMRI spring school from the Worldwide Universities Network (2014, ca. 10.000 NOK), the "Deutsche Gesellschaft für Psychophysiologie & deren Anwendung"(2007, ca. €500), the "Experimental Psychology Society" (2008, ca. £500), the "Guarantors of Brain" (2010, ca. £500), and the "Meltzer Research Fund" (2012, ca. 20.000 NOK; 2014 ca. 20.000 NOK).

Invited Talks

The treatment of hallucinations – future approaches (Bergen Tidlig Psykose Symposium 206, Bergen, Norway, 3/6/2016).

Sex, intelligence, and the brain – Do males and females have different cognitive skills? (Psykologiforbundet, Bergen, Norway, 3/5/2016).

Do sex differences in cognitive abilities arise from hemispheric asymmetries? (Workshop Hemispheric Asymmetries: Language, Handedness, and Beyond, Delmenhorst, Germany, 20/11/2015)

Non-invasive brain stimulation with TMS and tDCS (Meeting of the Norwegian society for clinical neurophysiology, Bergen, Norway, 14/11/2013).

Lateral thinking – evolutionary advantages of an asymmetric brain. (Bangor University, Wales, UK, 24/11/2012).

Brain asymmetry at its best – What degree of lateralisation is optimal for cognitive performance? (conference Psychologie & Gehirn, Magdeburg, Germany, 16/5/2008).

The evolutionary origins of cerebral asymmetries in humans: Does lateralization enhance parallel processing? (Conference Psychologie & Gehirn, Dortmund, Germany. 30/5/2007).

Selected Conference Talks since 2010

Conference Talks:

Hirnstein, M. (2016). Do sex differences in cognitive abilities arise from hemispheric asymmetries? 4th North Sea Meeting on brain asymmetries, Groningen, Netherlands.

Hirnstein, M., & Hugdahl, K. (2014). The excess of non-right-handedness in schizophrenia – the result of a sex artefact or biases in handedness assessment? 4th Schizophrenia International Research Society Conference, Florence, Italy. **selected for oral presentation among 800 submissions**

Hirnstein, M., Westerhausen, R., & Hugdahl, K. (2012). The little difference is very little indeed – A large scale study on sex differences in dichotic listening, 3rd North Sea Meeting on brain asymmetries, Ghent, Belgium.

Hirnstein, M. (2011). Is it really a 'right' ear advantage – left-right confusion and dichotic listening. Gregynog, UK.

Hirnstein, M., & Hausmann, M. (2010). Are individual differences in left-right confusion the result of differences in hemispheric asymmetry? An analysis of sex and handedness effects. 28th European Workshop on Cognitive Neuropsychology, Bressanone, Italy. **selected for oral presentation among 200 submissions**

Supervision

2016–L. Marquardt, PhD student, Bergen University.

2016–I. Kusztrits, PhD student, Bergen University.

2018 The Effects of Transcranial Direct Current Stimulation (tDCS) on Auditory False Perceptions, Attentional Modulation and Inhibitory Control (E. Liwanan, Hovedoppgave Profesjonstudie, Bergen University)

2018 Effekt av transkraniell magnetisk stimulering (TMS) på stemningsleie hos friske deltakere (A. Løvik, T. S. Bjørge, L. V. Tveit, Bachelor Psychology, Bergen University).

2017 No Way! Academic Group Differences in Cognition and Gender Stereotypes in Norway (J. Z. Stuebs, C. H. Hansen, Bachelor Psychology, Bergen University).

- 2017 Vurdering av en leksikalsk beslutningsoppgave og dens evne til å undersøke språklateralisering hos et norsk utvalg (S. H. Medhaug, L. B. Sandøy, Bachelor Psychology, Bergen University).
- 2016 How gender stereotypes affect women's and men's spatial and verbal performance – in natural science and engineering students (J. Riis, M. E. Ramdahl, M. Vistnes, Emneoppgave, Bergen University).
- 2016 Do sex differences in brain asymmetry underlie sex differences in cognitive abilities? (A. Tallaksen, B. Holsvik, E. Søderholm, I. Solhaug, Emneoppgave, Bergen University).
- 2016 How gender stereotypes affect women's and men's spatial and verbal performance – in natural science and engineering students (T. Frotvedt, K. Sandanger, N. Smith, Bachelor Psychology, Bergen University).
- 2016 How gender stereotypes affect women's and men's spatial and verbal performance – in humanities and arts students (B. Haugen, M. Funnemark, M. Thorvaldsen, Bachelor Psychology, Bergen University).
- 2014 Lost in Translation – Language effects in dichotic listening (M. Runderheim, N. Ege, S. Øiestad, Bachelor Psychology, Bergen University).
- 2014 A visual alternative to dichotic listening (Å. Lager, R., Vestbø, T. Buch, Bachelor Psychology, Bergen University).
- 2013 Lost in Translation – Language effects in dichotic listening (C. E. Narvesen, H. Jonassen, Bachelor Psychology, Bergen University).
- 2012 A possible sex difference in cognitive strategies when discriminating left from right (M. L. Andvik, J. A. Sunde, & S. Sørhus, Bachelor Psychology, Bergen University).
- 2010 Effects of stereotype threat upon left right discrimination (E. Kirkham, MSc Cognitive Neuroscience, Durham University).
- 2009 Multitasking - an advantage of the less lateralized brain? (M. Glod, MSc Cognitive Neuroscience, Durham University).
- 2009 Sex differences in hemispheric asymmetry and left-right confusion (S. Ladhar, MSc Cognitive Neuroscience, Durham University).
- 2007 Sex differences in left-right confusion (S. Ocklenburg, MSc Psychology and Cognitive Neuroscience, Ruhr-University Bochum).
- 2007 Hemispheric asymmetries in probability guessing (N. Hristova, MSc Psychology and Cognitive Neuroscience, Ruhr-University Bochum).

Teaching

In 2017, I **completed the university teaching training program** at the University of Bergen. Since 2015, I am the **leader of the Bachelor Psychology module “Learning and Behavior”**, Bergen University (PSYK207, 15 credit points, ca. 100 students). Since 2016, I am the **joint leader of the Bachelor Psychology module “Bachelor Thesis”**, Bergen University (PSYK250, 15 credit points, ca. 45 students). I **taught more than 50 lectures and seminars** in the Bachelor of General Psychology, Master of Cognitive Neuroscience, and Professional Studies in Psychology program at the University of Bergen. At the universities of Durham and Bochum, I taught various seminars and workshops to Bachelor students as a teaching assistant.

In general, I try to convey my enthusiasm for science to students with a **teaching style that is supportive and encouraging, but equally focused on fostering independent thinking.**

Commissions of Trust

- 2007- Ad-hoc reviewer for the following journals: Neuroscience & Biobehavioral Reviews, Neuropsychologia, Cortex, Neuroimage, Human Brain Mapping, Intelligence, Schizophrenia Bulletin, Journal of Neurophysiology, Behavioural Brain Research, Developmental Neuropsychology, Scientific Reports, PLoS ONE, Psychological Research, Evolutionary Psychology, Brain and Cognition, Laterality, Learning and Individual Differences, Psychiatry Journal, Scandinavian Journal of Psychology, Journal of Psychology, Canadian Journal of Behavioural Science, Psychology Research and Behavior Management.
- 2018 Evaluator for the Research Foundation for Polish Science.
- 2017 Member of the resource group for “gender perspectives in research” at the Norwegian Research Council.
- 2016 Departmental board member, University of Bergen, Department of Biological and Medical Psychology.
- 2015 Evaluator for the Research Foundation Flanders (Fonds Wetenschappelijk Onderzoek - Vlaanderen, FWO).
- 2015 Guest editor for Frontiers in Psychology (Research topic: Lateralization and Cognitive systems).

Conference Organization & Editorial Assignments

- 2017 **Co-organizer** of the international symposium “Aphasia and neuroplasticity” (Bergen, Norway, 12-13/9/2017).
- 2017 **Organizer** of the workshop “Electrical stimulation of the brain” (Bergen, Norway, 12/9/2017)
- 2015 **Organizer** of the international symposium “Sex Differences in Cognitive Skills Do they exist? How do they arise? And what do they mean for society?” (Bergen, Norway, 10/6/2015).
- 2015 **Guest editor for Frontiers in Psychology** (Research topic: Lateralization and Cognitive systems).

Memberships in Scientific Societies

- 2007- Deutsche Gesellschaft für Psychologie [German Psychological Society]

Languages

Fluent: German, English, Good: Norwegian, Basic: Croatian, French, Latin, Spanish

Referees

Prof Dr Kenneth Hugdahl

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