

Curriculum Vitae

Mascha van 't Wout-Frank

Department of Psychiatry and Human Behavior, Brown University
345 Blackstone Blvd, Providence RI 02906
Box 1821
Tel: +1 401 743 4628
Email: mascha_vant_wout@brown.edu

Center for Neurorestoration and Neurotechnology
Providence VA Medical Center
830 Chalkstone Ave, Providence, RI 02908
Tel: +1 401 273 7100 ext. 6256
Email: mascha.frank@va.gov

Education (chronological order)

September 1996 – September 2001

Master of Science, Utrecht University, the Netherlands, Clinical neuropsychology.
Thesis topic: Reality monitoring in hallucinating and non-hallucinating patients with schizophrenia

March 2002 – June 2006

Doctor of Philosophy (PhD) graduate degree, Psychological Laboratory, University Utrecht, in collaboration with the Department of Psychiatry, University Medical Center Utrecht, the Netherlands.

Thesis title: The nature of emotional abnormalities in schizophrenia: Evidence from patients and high-risk individuals.

Supervisors: Prof. Dr. E.H.F. de Haan, MD. Prof. Dr. R.S. Kahn, Prof. Dr. A. Aleman, Prof. Dr. R.P.C. Kessels

Post graduate training

August 2006 – December 2008

Postdoctoral Research Fellow at Neural Decision Science Laboratory, Department of Psychology, University of Arizona, Tucson. Fellowship focused on human decision-making and neuroimaging, and was supported by a Rubicon grant from the Dutch Organization for Scientific Research.

January 2009 – June 2011

Postdoctoral Research Associate at Department of Cognitive, Linguistic and Psychological Sciences and in collaboration with Department of Psychiatry and Human Behavior, Brown University, Providence. Research focus on decision-making in Obsessive Compulsive Disorder.

Work experience

July 2012 –

Assistant Professor (Research) in the Department of Psychiatry and Human Behavior, Brown Alpert Medical School, Brown University, Providence.

July 2011 – July 2012

Assistant Professor (Research) in the Department of Cognitive, Linguistic and Psychological Sciences, Brown University, Providence.

January 2011 – 2012

Adjunct faculty at the Rhode Island School of Design, Providence.

March 2002 – June 2006

PhD trainee at the Psychological Laboratory, University Utrecht, in collaboration with the Department of Psychiatry, University Medical Center Utrecht, the Netherlands.

Thesis title: The nature of emotional abnormalities in schizophrenia: Evidence from patients and high-risk individuals.

April 2000 – August 2001

Neuropsychologist Intern affiliated with the research team on Alzheimer research at the GGZ Meerkanten, Ermelo, the Netherlands at the division of elderly psychiatry.

September 1996 – September 2001

Grants (completed and ongoing support)

Rubicon Award 08/01/06 – 12/31/08

Netherlands Organization for Scientific Research (NWO)

“Gut feelings, split second decisions and unfairness; the role of emotions in decision-making”

Role: PI

Young Investigator Award 07/15/11 – 01/14/15

NARSAD

"Effects of Direct Current Stimulation of the vmPFC on Fear Extinction and Recall:

Implications for Obsessive Compulsive Disorder"

The goal of this project is to examine whether the noninvasive technology of transcranial Direct Current Stimulation (tDCS) can modulate and improve extinction recall which is central to the clinical usefulness of exposure-based behavioral therapies for OCD and related illnesses.

Role: PI

CfNN Seed funding 01/10/13 – 06/30/16

VA RR&D Center for Neurorestoration and Neurotechnology

“Pilot Study of transcranial Direct Current Stimulation for PTSD”

The goal of this project is to examine whether tDCS can modulate and improve fear extinction learning and subsequent extinction recall in Veterans with warzone-related PTSD.

This is central to the clinical usefulness of exposure-based behavioral therapies for PTSD.

Role: PI

CfNN Seed funding 04/01/14 – 03/30/16

VA RR&D Center for Neurorestoration and Neurotechnology

“Transcranial Direct Current Stimulation-Augmentation of Virtual Reality Exposure for PTSD: A Feasibility Pilot Study”

This pilot study explores preliminary feasibility and efficacy of virtual reality exposure therapy augmented with tDCS.

Role: PI

CfNN Seed funding (PI: Philip) 05/10/14 – 05/11/16

VA RR&D Center for Neurorestoration and Neurotechnology

“Pilot Testing of Theta-Burst Neuromodulation for Chronic PTSD”

This pilot study explores preliminary feasibility and efficacy Theta-burst Transcranial Magnetic Stimulation (TBS) for treatment of PTSD in Veterans.

Role: co-PI

SPiRE, I21RX002032-01 (PI: Philip)

04/01/16 – 03/31/18

US Dept. of Veterans Affairs, RR&D

“Pilot testing of theta-burst neuromodulation for chronic PTSD”

This pilot study explores preliminary feasibility and efficacy Theta-burst Transcranial Magnetic Stimulation (TBS) for treatment of PTSD in Veterans.

Role: co-I

New Frontiers Award (MPI: van 't Wout & Burwell)

05/01/17 – 04/30/18

Brown Institute for Brain Science – Norman Prince Neuroscience Institute

"Learning not to avoid: a translational approach with implications for anxiety disorders"

The goal of this translational project is to evaluate whether inhibition of the dorsolateral prefrontal cortex can improve generalization of extinction of avoidance behaviors.

Role: co-PI

Merit Award, 1I01RX002450-01A2 (PI: Philip)

04/01/18 – 03/31/22

US Dept. of Veterans Affairs, RR&D

“Combined Transcranial Direct Current Stimulation and Virtual Reality for PTSD”

This Merit Award project involves a randomized, sham-controlled study of transcranial direct current stimulation in combination with virtual-reality based exposure therapy, to determine if this combination may reduce PTSD symptoms and improve quality of life.

Role: co-I

Innovation Voucher (PI: Philip)

03/01/18 – 11/30/18

Rhode Island Commerce Corporation

“Closed-Loop Noninvasive Brain Stimulation for Posttraumatic Stress Disorder”

This early phase project aims to collect psychophysiological data to create an electronic device with an intelligent control algorithm that can apply patient-specific, appropriate tDCS dose for the treatment of fear-related responses in PTSD in an individualized manner.

Role: Co-I

STTR, AF17B-T002 (PI: Philip)

03/01/18 – 11/30/18

DoD, Airforce

“Closed-Loop Feedback Control for Transcranial Direct Current Stimulation”

This early phase project aims to collect psychophysiological data to create an electronic device with an intelligent control algorithm that can apply patient-specific, appropriate tDCS dose for the treatment of fear-related responses in PTSD in an individualized manner.

Role: Co-I

NIH AREA (PI: Nyhus)

Score: 20 (4%)

“Identifying the role of theta oscillations in the transient network dynamics involved in episodic memory”

This project seeks to understand the oscillatory dynamics involved in episodic memory, provide evidence for the directed functional interactions and how non-invasive brain stimulation affects memory through changes in oscillatory activity.

Role: Consultant

Additional education and skills

- Programming in Turbo Pascal, Professional Data Management, Utrecht University, 1999.
- Programming in E-prime, Psychological Laboratory, Utrecht, 2002.
- Writing English for Publication, ISOR, Utrecht, 2003.
- Psychophysiological measures: Skin conductance measurement, Psychological Laboratory, Utrecht, 2003.
- Repetitive Transcranial Magnetic Stimulation, University Medical Center Utrecht, Utrecht, 2004.
- Introduction in programming in MatLab, Psychological Laboratory, Utrecht, 2005.
- Neuropsychological test administration (incl. WAIS; CAMCOG), GGZ Meerkanten, Ermelo, 2000-2002.
- Psychiatric screening and diagnostic interviews (CASH; PANSS; MINI; SCID; CAPS (July 2014)), University Medical Center Utrecht; Alpert Brown Medical School, 2005-2014.
- SPM short course for fMRI analyses, 2006.
- Brain Voyager for fMRI analyses, University of Arizona, 2007.
- Training in and development of fMRI scanner sequences and operation of scanner. University of Arizona, 2007.
- Sheridan Teaching Seminar Certificate I program. Brown University, 2009-2010.
- Application and Safety Requirements for Transcranial Direct Current Stimulation. Alpert Brown Medical School, 2012.
- Virtual Reality-based Exposure Therapy (VRET) for PTSD. Bravemind, Providence VA Medical Center, 2015.
- NeuroElectrics StarStim training and demonstration. Brown University, 2015.
- Administration of structured clinical interview for DSM-5 (SCID-5) training. Butler Hospital, 2018.
- Transcranial ultrasound training by Philips. Providence VA Medical Center, 2018

Professional memberships, Service & Synergistic activities

2007-10	Member, Cognitive Neuroscience Society
2007-08	Member, Society of Judgment and Decision-making
2007-	Member, Association for Psychological Science
2010-14	Member, Society for NeuroEconomics
2017-	Member, Society of Biological Psychiatry

November 2009 – July 2011

Member of the Postdoctoral Advisory Panel, Brown University
<http://biomed.brown.edu/grad-postdoc/AdvisoryPanel.html>

March 2017 – July 2017

Task Force member in the Group on Women in Medicine and Science (GWIMS), affiliated with the Association of American Medical Colleges to develop resource on "Caretaking in Academic Medicine: From pregnancy through early parenting."

April 2017 – present

Alternate member Brown University IRB

Publications (peer-reviewed, chronological order)

1. van 't Wout, M., Aleman, A., Kessels, R.P.C., Larøi, F., Kahn, R.S. (2004). Emotional processing in a non-clinical psychosis-prone sample. *Schizophrenia Research*, 68: 271-281.
2. Aleman, A., van 't Wout, M. (2004). Subvocalization in auditory-verbal imagery: just a form of motor imagery? *Cognitive Processing*, 5: 228-231.
3. van 't Wout, M., Kahn, R.S., Sanfey, A.G., Aleman, A. (2005). rTMS over the right DLPFC affects decision-making strategy. *NeuroReport*, 16: 1849-1852.
4. van 't Wout, M., Aleman, A., Kessels, R.P.C., Kahn, R.S. (2006). Object location memory in schizophrenia: interference of symbolic threatening content. *Cognitive Neuropsychiatry*, 11:272-284.
5. van 't Wout, M., Kahn, R.S., Sanfey, A.G., Aleman, A. (2006). Affective state and decision-making in the Ultimatum Game. *Experimental Brain Research*, 169:564-568.
6. van 't Wout, M., Aleman, A., Bermond, B., Kahn, R.S. (2007). No words for feelings: alexithymia in schizophrenia and first-degree relatives. *Comprehensive Psychiatry*, 48:27-33.
7. van 't Wout, M., Aleman, A., Kessels, R.P.C., Cahn, W., de Haan, E.H.F., Kahn, R.S. (2007). Exploring the nature of facial affect processing deficits in schizophrenia. *Psychiatry Research*, 150:227-235.
8. van 't Wout, M., van Dijke, A., Aleman, A., Kessels, R.P.C., Pijpers, W., Kahn, R.S. (2007). Fearful faces in schizophrenia: the relationship between patient characteristics and facial affect recognition. *Journal of Nervous and Mental Disease*, 195:758-764.
9. Aleman, A., van 't Wout, M. (2008). Repetitive TMS over the right dorsolateral prefrontal cortex disrupts span task performance. *Neuropsychobiology*, 57:44-48.
10. Baas, D., van 't Wout, M., Aleman, A., Kahn, R.S. (2008). Social judgment in clinically stable patients with schizophrenia and healthy relatives: behavioural evidence of social brain dysfunction. *Psychological Medicine*, 38:747-754.
11. van 't Wout, M., Sanfey, A.G. (2008). Friend or Foe: The effect of implicit trustworthiness judgments in social decision-making. *Cognition*, 108:796-803.
12. van 't Wout, M., van Rijn, S., Aleman, A., Jellema, T., Kahn, R.S. (2009). Deficits in implicit attention to social signals in the schizophrenia spectrum: behavioral evidence from a new illusion. *PLoS ONE*, 4(5): e5581. doi: 10.1371/journal.pos.0005581.
13. Jellema, T., Lorteije, J., van Rijn S., van 't Wout, M., De Haan, E. H. F., Van Engeland, H. & Kemner, C. (2009). Involuntary interpretation of social cues is compromised in autism spectrum disorders. *Autism Research*, 2:192–204. DOI: 10.1002/aur.83
14. van der Meer, L., van 't Wout, M., Aleman, A. (2009). Emotion regulation strategies in patients with schizophrenia. *Psychiatry Research*, 170:108-113
15. Chang, L.J., Doll, B., van 't Wout, M., Frank, M.J., Sanfey, A.G. (2010). Seeing is Believing: Trustworthiness as a dynamic belief. *Cognitive Psychology*, 61:87-105.
16. van 't Wout, M., Chang, L., Sanfey, A.G. (2010). The influence of emotion regulation on social interactive decision-making. *Emotion*, 10: 815-821.
17. van 't Wout, M., Sanfey, A.G. (2011). Interactive decision-making in people with schizotypal traits: a game theory approach. *Psychiatry Research*, 185: 92-96.
18. van Rijn, S., Aleman, A., van 't Wout, M., Sprong, M., Ziermans, T., Schothorst, P., van Engeland, H., Swaab, H. (2011). Affective dysfunctions in adolescents at risk for psychosis: Emotion awareness and social functioning. *Psychiatry Research*, 187: 100-105.

19. van 't Wout, M. (2011). Game theory and the brain: neural modulation and lesion studies as a tool to examine interpersonal decision-making. *Nervenheilkunde* (Invited review).
20. Harlé, K.M., Chang, L.J., van 't Wout, M., Sanfey, A.G. (2012). The neural mechanisms of affect infusion in social economic decision-making: a mediating role of the anterior insula. *NeuroImage*, 61: 32-40.
21. Grecucci, A., Giorgetta, C., van 't Wout, M., Bonini, N., Sanfey, A. (2013). Reappraising the Ultimatum: an fMRI study of emotion regulation and decision-making. *Cerebral Cortex*, 23: 399-410.
22. Goldin, G., van 't Wout, M., Sloman, S. A., Evans, D.W., Greenberg, B.D., Rasmussen, S.A. (2013). Risk judgment in Obsessive–Compulsive Disorder: Testing a dual-systems account. *Journal of Obsessive-Compulsive and Related Disorders*, 2: 406-411.
23. van 't Wout, M., Faught, S., Menino, D. (2013). Does interoceptive awareness affect the ability to regulate unfair treatment by others? *Frontiers in Emotion Science*, 4.
24. Mariano, T.Y., van 't Wout, M., Jacobson, B.L., Garnaat, S.L., Kirschner, J.L., Rasmussen, S.A., Greenberg, B.D. (2015). Effects of Transcranial Direct Current Stimulation (tDCS) on Pain Distress Tolerance: A Preliminary Study. *Pain Medicine*, 16: 1580-1588.
25. Mariano, T.Y., van 't Wout, M., Garnaat, S.L., Rasmussen, S.A., Greenberg, B.D. (2016). Transcranial Direct Current Stimulation (tDCS) Targeting Left Dorsolateral Prefrontal Cortex Modulates Task-Induced Acute Pain in Healthy Volunteers. *Pain Medicine*, 17(4), 737-745. DOI: 10.1093/pm/pnv042
26. van 't Wout, M., Mariano, T.Y., Garnaat, S.L., Reddy, M.K., Rasmussen, S.A., Greenberg, B.D. (2016). Can transcranial direct current stimulation augment extinction of conditioned fear? *Brain Stimulation*, 9: 529–536. DOI: 10.1016/j.brs.2016.03.004
27. Van Dijke, A., van 't Wout, M., Ford, J., Aleman, A. (2016). Disorder-specific deficits in facial affect labeling in schizophrenia, and borderline personality disorder. *PLoS ONE*. 11(6): e0154145. DOI: 10.1371/journal.pone.0154145
28. Sorgi, K.M., van 't Wout, M. (2016). The influence of cooperation and defection on social decision-making in depression: A study of the iterated prisoner's dilemma game. *Psychiatry Research*, 246: 512–519. DOI: 10.1016/j.psychres.2016.10.025
29. van 't Wout, M., Longo, S., Reddy, M.K., Philip, N.S., Greenberg, B.D. (2017). Transcranial direct current stimulation may modulate memory in posttraumatic stress disorder. *Brain and Behavior*, 7(5): e00681. DOI: 10.1002/brb3.681
30. van 't Wout, M., Spofford, C.M., Shea, M.T., Sevin, E., Unger, W.S. (2017). Psychophysiological arousal to non-ideographic Virtual Reality Combat scenes distinguishes Veterans with PTSD from those without. *Applied Psychophysiology and Biofeedback*, 42(3): 209-221. DOI: 10.1007/s1048
31. Ridout, S.J., Spofford, C.M., van 't Wout-Frank, M., Philip, N.S., Unger, W.S., Carpenter, L.L., Tyrka, A.R., Shea, M.T. (2017). Heart rate variability responses to a standardized virtual reality exposure in Veterans with PTSD. *Current Treatment Options in Psychiatry*, 4(3): 271-280. DOI: 10.1007/s40501-017-0118-9
32. Philip, N.S., Barredo, J., van 't Wout-Frank, M., Almeida, J., Tyrka, A.R., Price, L.H., Carpenter, L.L. (2017). Network Mechanisms of Clinical Response to Transcranial Magnetic Stimulation in Posttraumatic Stress Disorder and Major Depressive Disorder. *Biological Psychiatry*, 83(3): 263-272. DOI: 10.1016/j.biopsych.2017.07.021
33. van 't Wout, M., Silverman, H. (2017). Modulating what is and what could have been: The effect of transcranial direct current stimulation on the evaluation of attained and

- unattained decision outcomes. *Cognitive, Affective, and Behavioral Neuroscience*, 17(6): 1176–1185. DOI: 10.3758/s1341
34. Abend, R., van 't Wout, M. (2018). Commentary: Augmentation of fear extinction by transcranial direct current stimulation (tDCS). *Frontiers in Behavioral Neuroscience*. DOI: 10.3389/fnbeh.2018.00121
 35. Mariano, T.Y., Burgess, F.W., Bowker, M., Kirschner, J. van't Wout-Frank, M., Jones, R.N., Halladay, C.W., Stein, M., Greenberg, B.D. (in press). Transcranial Direct Current Stimulation for Affective Symptoms and Functioning in Chronic Low Back Pain: A Pilot Double-Blinded, Randomized, Placebo-Controlled Trial. *Pain Medicine*
 36. van 't Wout, M., Shea, M.T., Larson, V.C., Greenberg, B.G., Philip, N.S. (2018). Combined Transcranial Direct Current Stimulation with Virtual Reality Exposure for Posttraumatic Stress Disorder: Feasibility and Pilot Results. *Brain Stimulation*. DOI: 10.1016/j.brs.2018.09.011
 37. Barredo, J., Aiken, E., van 't Wout-Frank, M., Greenberg, B.D., Carpenter, L.L., Philip, N.S. (in press). Network Functional Architecture and Aberrant Functional Connectivity in Posttraumatic Stress Disorder: A Clinical Application of Network Convergence. *Brain Connectivity*, 8(9):549-557.
 38. Koek, R.J., Roach, J., Athanasiou, N., van 't Wout-Frank, M., Philip, N.S. (in press). Neuromodulatory Treatments for PTSD: A Therapeutic Perspective and Review. *Progress in Neuropsychopharmacology and Biological Psychiatry Special Issue on PTSD. Progress in Neuropsychopharmacology & Biological Psychiatry*.
 39. Barredo, J., Aiken, E., van 't Wout-Frank, M., Greenberg, B.D., Carpenter, L.L., Philip, N.S. (in press). Neuroimaging Correlates of Suicidality in Decision-Making Circuits in Posttraumatic Stress Disorder. *Frontiers in Psychiatry, Neuroimaging and Stimulation*. DOI: 10.3389/fpsy.2019.00044.

Book chapters

1. van Rijn, S., van 't Wout, M., Spikman, J. Emotion and Social Cognition. Chapter in 'Clinical Neuropsychology' (Klinische Neuropsychologie) handbook Eds. Kessels, R., Eling, P., Ponds, R., Spikman, J., van Zandvoort, M. Reprint and translation in English, August 2017.
2. van 't Wout M., Leder J. (2018). Ultimatum Game. In: Zeigler-Hill V., Shackelford T. (eds) *Encyclopedia of Personality and Individual Differences*. Springer, Cham, DOI: 10.1007/978-3-319-28099-8_880-1.

Manuscripts in preparation or under review

1. Philip, N.S., Barredo, J., Aiken, E. Larson, V., Jones, R.N., Shea, M.T., Greenberg, B.D., van 't Wout-Frank, M. Theta Burst Transcranial Magnetic Stimulation for Posttraumatic Stress Disorder. Revision American Journal of Psychiatry.
2. van 't Wout-Frank, Barredo, J., Shea, M.T., Philip, N.S. Improvements in anger after TBS; selfreport and neural architecture. In prep
3. van 't Wout, M., Philip, N.S., Carpenter, L.L. HRV pre and post TMS for depression and PTSD. In prep.
4. van 't Wout, M., Abend, R. Measuring fear and safety learning and memory in humans: Implications for interventions and treatment of anxiety and stress-based disorders. In prep.

Ongoing projects

1. Philip, N.S., van 't Wout, M., Shea, M.T., Greenberg, B.D. Pilot Testing of Theta-Burst Neuromodulation for Chronic PTSD.

2. van 't Wout, M., Garnaat, S.L., Burwell, R. The effects of tDCS-induced inhibition of dorsolateral prefrontal cortex on the generalization of avoidance-based reversal learning across novel contexts.
3. Philip, N.S., van 't Wout, M., Shea, M.T., Greenberg, B.D. Combined Transcranial Direct Current Stimulation and Virtual Reality for PTSD.
4. Philip, N.S., van 't Wout, M., Sepe, B., Sepe, R. Closed-Loop Noninvasive Brain Stimulation for Posttraumatic Stress Disorder and Cognitive Enhancement.

Teaching experience

Courses

- CLPS 1480A (formerly PSYCH 1820) 'Cognitive Neuroscience of Emotion', Brown University, Department of Cognitive, Linguistic & Psychological Sciences, Providence (Fall 2009-2011).
- CLPS 1480D 'Topics in Cognitive Neuroscience: Cognitive Neuropsychiatry', Brown University, Department of Cognitive, Linguistic & Psychological Sciences, Providence (Spring 2011).
- 'Mind, brain and behavior: an introduction to Cognitive Neuroscience' at Rhode Island School of Design, Providence (Spring 2011).

Guest Lectures

- Master course 'Cognitive Neuropsychiatry', University Utrecht (2005 & 2006).
- Assisted teaching in the undergraduate course 'Experimental Psychology', Utrecht (2005 & 2006).
- Training for psychiatrists: A-opleiding arts-assistenten, DeltaBouman Psychiatric Hospital, Poortugaal NL (Fall 2006).
- 'Decision-making', University of Arizona, Tucson (Spring 2008).
- 'Drugs and Behavior', Rhode Island College, Providence (Fall 2009).
- Integrative Case Conference/Psychiatry Seminar on posttraumatic stress disorder and neural circuits of fear, Butler Hospital (2014 & 2016-2018)
- CLPS 1494 "Affective Neuroscience (Dr. Shenhav), Brown University, Providence (10/12/17)

Student supervision/evaluation

- Master-thesis supervisor, Utrecht University and Delta Bouman Psychiatry Hospital, Poortugaal (2005-2011).
- Bachelor-thesis, Utrecht University (2005).
- Honors-thesis supervisor, Brown University (2010-2016; 2018-19)
- Independent Study supervisor, Brown University (2010-2016)
- Summer UTRA supervision, CfNN & Brown University (summer 2015)
- External Examiner, Doctor of Philosophy degree for Daina Crafa, Thesis title: "Adapting differently to changing contexts: flexible yet atypical neural and behavioral responses to dynamic social contexts in Schizophrenia". McGill University, Canada (August, 2017)
- Dissertation Committee member, Doctor of Philosophy degree for Ryan Miller, Thesis title: "Intrinsic Change or Mere Compliance? The Influence of Descriptive Norms on Moral Conformity". Brown University, USA (September 2017)

Ad-hoc reviewer (alphabetic order)

Journals

Acta Neuropsychiatrica; Ammons Scientific; Archives of General Psychiatry; Austin Journal of Cerebrovascular Disease & Stroke; **Behavioral Neuroscience**; **Behavioural Brain**

Research; Biomedicines; Brain Sciences; Brain Stimulation; British Journal of Psychiatry; **Cognition;** Cognitive, Affective, and Behavioral Neuroscience; Cognition and Emotion; **Cortex;** Emotion; European Journal of Neurology; European Journal of Social Psychology; European Psychiatry; Evolution & Human Behavior; **Frontiers in Behavioral Neuroscience;** Frontiers in Human Neuroscience; Human Psychopharmacology: Clinical and Experimental; IEEE Transactions on Affective Computing; International Journal of Psychology; Journal of Cognitive Neuroscience; Journal of Cognitive Psychology; Journal of Economic Psychology; Journal of European Neurology; Journal of Experiment Psychology: General; Journal of Nervous and Mental Disease; Journal of Neurology; Journal of Neuropsychology; Journal of Neuroscience; Journal of Psychiatric Research; **NeuroImage;** Neuropsychologia; **Neuroscience;** PLoS ONE; **Progress in Neuropsychopharmacology & Biological Psychiatry;** **Psychiatry Research;** Psychological Medicine; Psychological Science; Psychological Reports; Psychophysiology; **Reviews in the Neurosciences;** Schizophrenia Bulletin; Schizophrenia Research; Social Cognition; **Social Cognitive and Affective Neuroscience;** Social Neuroscience; The Clinical Neuropsychologist; The Spanish Journal of Psychology; Translational Neuroscience.

Funding agencies

- Department of Veteran Affairs Rehabilitation Research and Development Service Small Projects in Rehabilitation Research (RR&D SPiRE) Study Section, 2018
- French National Research Agency (ANR), 2012
- National Science Foundation (NSF), 2011
- Oesterreichische Nationalbank Anniversary Fund, 2015 & 2016

Oral presentations (Invited only)

- 'Deficits in emotional processing in schizophrenia'. 2004. Nederlandse Vereniging Neuropsychologie Voorjaarsconferentie (Dutch Organisation for Neuropsychology).
- van 't Wout (2005). 'Emotions in decision-making'. 2005. Nederlandse Vereniging voor Psychonomie (Dutch Organisation for Psychonomics).
- 'Social cognition in schizophrenia and high-risk groups for schizophrenia (Genetics and Neuropsychology)'. 2006. DeltaBouman Psychiatric Hospital.
- 'The role of perceived trustworthiness in decision-making'. January 2007. Emotion and cognition workshop Rovereto, Italy.
- 'Gut feelings, split second decisions and unfairness; the role of emotions in decision-making'. January 2007. PhD Colloquium University Milano, Italy.
- 'Emotions and goal-maintenance in decision-making'. 2007. Travel award speaker: Social and Cognitive Neuroscience meeting, Austin.
- 'Emotions and goal-maintenance in decision-making'. 2008. Colloquium Leuven University, Belgium.
- 'Friend or Foe: The influence of implicit trust judgments on cooperation in social interactive decision-making'. October, 2009 Conference on Trust, Advice and Reputation, Toulouse France.
- 'The human emotions & The emotional human'. October, 2010. Samsung Workshop, Rhode Island School of Design.
- 'Effects of transcranial Direct Current Stimulation over the prefrontal cortex on fear extinction and recall: Implications for anxiety disorders'. October 2013. Department of Cognitive, Linguistic & Psychological Sciences, Brown University.
- 'Enhancing fear extinction with transcranial direct current stimulation: implications for PTSD. February, 2015. Brown Bag Presentation Center of Innovation in Long Term Services and Support. PVMAC, Providence.

- 'Regulation decision-making after unfair treatment by others; behavioral and neural responses and the influence of interoception. January, 2015. Workshop on 'Cognitive Control and Social Decision Making. Toulouse, France.
- 'Enhancing fear extinction with transcranial Direct Current Stimulation: implications for PTSD'. Donders Centre for Cognitive Neuroimaging. May 2015. Nijmegen, the Netherlands.
- 'Enhancing fear extinction with transcranial Direct Current Stimulation: implications for PTSD'. June 2015. Donders Institute for Brain, Cognition and Behaviour. Nijmegen, the Netherlands.
- Brain Week Rhode Island "PTSD: Trauma to Treatment". March 15, 2017.
- Mental Health Colloquium "Enhancing safety memories with non-invasive brain stimulation techniques for PTSD treatment". Providence VA Medical Center, April 19, 2017.
- Michael S. Goodman '74 Memorial Seminar Series "Enhancing safety memories with non-invasive brain stimulation techniques for PTSD treatment". Cognitive, Linguistic and Psychological Sciences, Brown University, November 17, 2017.
- Interviewed for 'VA Research Currents' from the Office of Research & Development, titled "Brain stimulation technique shows promise in reducing fear in Veterans with PTSD" <https://www.research.va.gov/currents/1117-Brain-stimulation-technique-shows-promise-in-reducing-fear-in-PTSD.cfm> (November 9, 2017)
- Interviewed for Providence Business News "First study of hybrid low-current stimulation virtual reality PTSD treatment seeks subjects (April 13, 2018)

Conference presentations (peer-reviewed and published only)

- Jellema, T., Lorteije, J.A.M., van Rijn, S., van 't Wout, M. et al. (2004). Failure to automate the semantic processing of social cues in autism. *Perception* 33:101-101 Suppl.
- van Rijn S., van Honk, J., Aleman, A., van 't Wout, M., Kahn, R.S. (2003) Orbitofrontal Cortex Functioning in Schizotypy: Relationship Between SPQ Ratings and Punishment Learning. *Schizophrenia Research*, 60, 161.
- van 't Wout M., Aleman, A., Kahn, R.S. (2003) Schizotypy and Alexithymia in Hallucination-Prone Individuals. *Schizophrenia Research*, 60, 160.
- van Rijn S., Aleman A., van 't Wout M., et al. (2004). Schizotypy and social skills: Performance versus distress. *Schizophrenia Research* 67, 224-224 Suppl. S.
- van 't Wout M., Aleman A., Kessels R.P.C., et al. (2004). Facial affect recognition in schizophrenia: Specific deficits and relationship with symptoms *Schizophrenia Research* 67, 260-260 Suppl. S.
- Aleman A., van 't Wout M., Kahn R.S. (2005). Emotional working memory in schizophrenia. *Schizophrenia Bulletin*, 31 (2): 316.
- van 't Wout M., Aleman A., Bermond B., et al. (2005). Specific impairments in the perception, regulation, and psychophysiology of emotion processing in schizophrenia. *Schizophrenia Bulletin* 31 (2): 347.
- van 't Wout M., Mariano, T.Y., Reddy, M.K., Rasmussen, S.A., Greenberg, B.D. (2015). Modulating extinction of conditioned fear by transcranial direct current stimulation. *Biological Psychiatry* 77(9): 372S.
- Mariano, T.Y., van 't Wout M., Garnaat, S.L., Rasmussen, S.A., Greenberg, B.D. (2015). Modulating tolerability of acute painful stimuli with transcranial direct current stimulation (tDCS) targeting the dorsolateral prefrontal cortex. *Biological Psychiatry* 77 (9): 372S.

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- van 't Wout, M., Reddy, M. K., Philip, N. S., & Greenberg, B. D. (2017). Proceedings# 4. Augmenting Safety Learning and Memory with transcranial Direct Current Stimulation: Effects of Stimulation Timing on Extinction and Recall. *Brain Stimulation*, 10(4), e50.
- Philip, N.S., Barredo, J., v' ant Wout, M., Almeida, J., Tyrka, A.R., Price, L.H., Carpenter, L.L. (2017). 101-Network Mechanisms of Clinical Response to Transcranial Magnetic Stimulation in Posttraumatic Stress and Major Depressive Disorders. *Biological Psychiatry*, 81(10), S42-S43.
- Van 't Wout, M., Reddy, M., Greenberg, D., Philip, N. (2017). 636. Combining Transcranial Direct Current Stimulation with Virtual Reality Exposure for PTSD. *Biological Psychiatry*, 81(10), S258.
- Mariano, T., Burgess, F., Bowker, M., Kirschner, J., van't Wout-Frank, M., Halladay, C., Jones, R., Stein, M., Greenberg, B. (2018). T187. Transcranial Direct Current Stimulation (tDCS) for the Affective Symptoms of Chronic Low Back Pain (CLBP): A Double-Blinded, Randomized, Placebo-Controlled Trial. *Biological Psychiatry*, 83(9), pp.S200-S201.

Additional conference poster presentations (CfNN-related only)

- van 't Wout M., Mariano, T.Y, Reddy, M.K., Rasmussen, S.A., Greenberg, B.D. (2015). Enhancing extinction of conditioned fear by transcranial Direct Current Stimulation. 2nd Annual Mind Brain Research Day. Brown University.
- Silverman, H., van 't Wout M. Modulating feelings of regret with transcranial direct current stimulation. Summer Research Symposium. Brown University, August 2015
- Dunlap, C., van 't Wout, M., Philip, N.S., Greenberg, B.D. (2016). Transcranial direct current stimulation-augmentation of virtual reality exposure for PTSD: a focus on methods. Annual Mind Brain Research Day. Brown University
- van 't Wout, M., Philip, N.S., Rasmussen, S.A., Greenberg, B.D. (2016). Augmenting safety learning and memory with transcranial direct current stimulation: effects of stimulation timing on extinction and recall. Annual Mind Brain Research Day. Brown University
- Albright, S.E., Barredo, J., Frank, M., Ridout, S., Ridout, K., Almeida, J., Tyrka, A.R., Price, L.H., Carpenter, L.L., Philip, N.S. (2016). Repetitive Transcranial Magnetic Stimulation Corrects Network Pathology in Posttraumatic Stress Disorder and Major Depressive Disorder. Annual Mind Brain Research Day. Brown University
- van 't Wout, M., Longo, S., Reddy, M.K., Philip, N.S., Greenberg, B.D. (2016). Transcranial direct current stimulation may modulate extinction memory in Veterans with posttraumatic stress disorder. Research week PVAMC
- van 't Wout, M., Longo, S., Reddy, M.K., Philip, N.S., Greenberg, B.D (2016). Transcranial Direct Current Stimulation During Extinction Consolidation Enhances Extinction Recall in Veterans With Posttraumatic Stress Disorder. *Biological Psychiatry* May
- Spofford, C., van 't Wout-Frank, M., Unger, W., Sevin, E., Shea, M.T. (2016). Skin conductance reactivity to standardized virtual reality combat scenes in Veterans with PTSD. Research week PVAMC
- Dunlap, C., van 't Wout, M., Philip, N.S., Greenberg, B.D. (2016). Transcranial direct current stimulation-augmentation of virtual reality exposure for PTSD: a focus on methods. Research week PVAMC

- Albright, S.E., Barredo, J., Frank, M., Ridout, S., Ridout, K., Almeida, J., Tyrka, A.R., Price, L.H., Carpenter, L.L., Philip, N.S. (2016). Repetitive Transcranial Magnetic Stimulation Corrects Network Pathology in Posttraumatic Stress Disorder and Major Depressive Disorder. Research week PVAMC
- Philip, N.S., Albright, S.E., Barredo, J. Frank, M., Ridou, S., Ridout, K., Almeida, J., Tyrka, A.R., Price, L.H., Carpenter, L.L. (2016). Repetitive Transcranial Magnetic Stimulation Corrects Network Pathology in Patients with Comorbid Posttraumatic Stress Disorder and Major Depressive Disorder. May, Society of Biological Psychiatry.
- Philip, N.S., Barredo, J., van 't Wout-Frank, M., Almeida, J., Tyrka, A.R., Price, L.H., Carpenter, L.L. (2016). Network Mechanisms of 5Hz Transcranial Magnetic Stimulation in Patients with Posttraumatic Stress and Major Depressive Disorders. American College of Neuropsychopharmacology.
- Ridout, S.J., Spofford, C.M., van 't Wout, M., Unger, W.S., Philip, N.S., Carpenter, L.L., Shea, M.T. (2017). Heart rate variability responses to a standardized virtual reality exposure in Veterans with PTSD. Society of Biological Psychiatry
- Barredo, J., Carpenter, L.L., van 't Wout-Frank, M., Aiken, E., Dunlap, C., Greenberg, B.D., Philip, N.S. (2017). The influence of early life stress and PTSD on systems-level functional network organization: A novel application of convergence analysis. Annual Mind Brain Research Day. Brown University
- van 't Wout, M., Silverman, H.E. (2017). Modulating “what might have been”: The effect of transcranial direct current stimulation on feelings of regret and relief. Annual Mind Brain Research Day. Brown University
- Larson, V.C., van 't Wout-Frank, M., Philip, N.S., Greenberg, B.D. (2017). Transcranial Direct Current Stimulation-Augmentation of Virtual Reality Exposure for PTSD: Preliminary Results. Annual Mind Brain Research Day. Brown University
**Poster Award Winner.*
- Larson, V.C., van 't Wout-Frank, M., Philip, N.S., Greenberg, B.D. (2017). Transcranial Direct Current Stimulation-Augmentation of Virtual Reality Exposure for PTSD: Preliminary Results. Research Week PVAMC.
- van 't Wout, M., Silverman, H.E. (2017). Modulating “what might have been”: The effect of transcranial direct current stimulation on feelings of regret and relief. Research Week PVAMC.
- Philip, N.S., Barredo, J., van 't Wout-Frank, M., Greenberg, B.G., Carpenter, L.L. (2017). Therapeutic Transcranial Magnetic Stimulation Improves Cortical Information Flow in Posttraumatic Stress Disorder. American College of Neuropsychopharmacology
- Ridout, S.J., Spofford, C.M., van 't Wout, M., Unger, W.S., Philip, N.S., Carpenter, L.L., Shea, M.T. (2017). Heart rate variability responses to a standardized virtual reality exposure in Veterans with PTSD. American College of Neuropsychopharmacology.
- Mariano, T.Y., Burgess, F., Bowker, M., Kirschner, J., van 't Wout-Frank, M., Halladay, C.W., Jones, R.N., Stein, M., Greenberg, B.D. (2018). A Double-Blinded RCT of Transcranial Direct Current Stimulation (tDCS) for the Affective Symptoms of Chronic Low Back Pain (CLBP). International Society for CNS Clinical Trials and Methodology.
- Long, N.M., Larson, V.C., Garnaat, L.S., Burwell, R., Jacobson, T., Philip, N.S., van't Wout-Frank, M. (2018). Learning not to avoid: preliminary data on the effects of transcranial direct current stimulation on learning and generalization to novel contexts. Annual Mind Brain Research Day, Brown University. March 27, 2018
**Poster Award Winner*

- Mariano, T., Burgess, F.W., Bowker, M., Kirschner, J., van't Wout-Frank, M., Jones, R., Halladay, C.W., Stein, M., Greenberg, B.D. (2018). A Double-Blinded Placebo-Controlled RCT of Repeated Transcranial Direct Current Stimulation for the Affective Symptoms of Chronic Low Back Pain. Annual Mind Brain Research Day, Brown University.
- Long, N.M., Larson, V.C., Garnaat, L.S., Burwell, R., Jacobson, T., Philip, N.S., van't Wout-Frank, M. (2018). Learning not to avoid: preliminary data on the effects of transcranial direct current stimulation on learning and generalization to novel contexts. VA Research Day, PVAMC
- van 't Wout-Frank, M., Garnaat, S.L., Long, N.M., Larson, V.C, Philip, N.S., Jacobson, T., Burwell, R. Learning not to avoid: preliminary data on the effects of transcranial direct current stimulation on learning and generalization to novel contexts. Carolina Neurostimulation Conference, North Carolina. May 22, 2018.
- Mariano, T.Y., Burgess, F.W., Bowker, M., Kirschner, J., van't Wout-Frank, M., Jones, R.N., Halladay, C.W., Stein, M., Greenberg, B.D. A Double-Blinded, Placebo-Controlled RCT of Repeated Daily Sessions of Transcranial Direct Current Stimulation (tDCS) for the Affective Symptoms of Chronic Low Back Pain (CLBP). American Society of Clinical Psychopharmacology Annual Meeting. 2018.
- Philip NS, Barredo J, Aiken EA, Larson V, Jones RN, Shea MT, Greenberg BD, and van't Wout-Frank M., Theta Burst Stimulation for Posttraumatic Stress Disorder. American College of Neuropsychopharmacology, 2018