

# Dr. Xiaochen Y. Zheng | 郑晓辰

*Ph.D in Cognitive Neuroscience*

*Postdoctoral researcher at Donders Institute for Brain, Cognition and Behaviour, Radboud University*

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## Employment

Postdoctoral researcher, Donders Center for Cognitive Neuroimaging, Radboud University	The Netherlands Nov. 2019- Pres.
Coordinating postdoc, Dutch research consortium " <a href="#">Language in Interaction</a> "	The Netherlands Nov. 2019- Pres.
Predoctoral researcher, Donders Center for Cognition, Radboud University	The Netherlands Sep. 2015-Aug. 2019

## Education

Donders Graduate School for Cognitive Neuroscience & International Max Plank Research School for Language Science	The Netherlands Sep. 2015-Aug.2019.
Ph.D in Cognitive Neuroscience supervised by Prof. dr. Ardi Roelofs & Dr. Kristin Lemhöfer	
Tilburg University & Radboud University	The Netherlands
Research Master in Language and Communication (Highest distinction, top 5%)	Sep. 2013-Aug. 2015
Beijing Normal University	Beijing, China
B.S. in Psychology (GPA: 88.6/100)	Sep.2007-Jul.2011

## Publications

- Zheng, X. Y. & Wynn, S. C. (2022). Midfrontal theta is associated with errors, but no evidence for a link with error-related memory. *Neuroimage: Report*. [\[Open Access\]](#) [\[data\]](#)
- Chupina, I., Sierpowska, J., Zheng, X. Y., Dewenter, A., Piastra, M. C., & Piai, V. (2022). Right-hemisphere compensation during word production: A single case of left-hemisphere young stroke. *European Journal of Neuroscience*. [\[Open Access\]](#)
- Hustá, C., Zheng, X., Papoutsis, C., & Piai, V. (2021). Electrophysiological signatures of conceptual and lexical retrieval from semantic memory. *Neuropsychologia*, 107988. [\[DOI\]](#) [\[data\]](#)
- Piai, V., De Witte, E., Sierpowska, J., Zheng, X., Hinkley, L. B., Mizuiri, D., ... & Nagarajan, S. S. (2020). Language neuroplasticity in brain tumor patients revealed by magnetoencephalography. *Journal of Cognitive Neuroscience*, 32(8), 1497-1507. [\[Open Access\]](#)
- Zheng, X. (2020). *Control and monitoring in bilingual speech production: language selection, switching and intrusion*. (Doctoral dissertation, Radboud University, Nijmegen, The Netherlands). [\[Open Access\]](#)
- Zheng, X., Roelofs, A., Erkan, H., & Lemhöfer, K. (2020). Dynamics of inhibitory control during bilingual speech production: An electrophysiological study. *Neuropsychologia*, 140, 107387. [\[DOI\]](#) [\[data\]](#)
- Piai, V. & Zheng, X. (2019). Speaking waves: neuronal oscillations in language production. Book chapter for *The*

*Psychology of Learning and Motivation* (Vol. 71, pp. 265-302). Academic Press. [\[DOI\]](#)

**Zheng, X.,** Roelofs, A., & Lemhöfer, K. (2019). Language selection contributes to intrusion errors in speaking:

Evidence from picture naming. *Bilingualism: Language and Cognition*, 23(4), 788-800. [\[Open Access\]](#) [\[data\]](#)

**Zheng, X.** & Lemhöfer, K. (2019). The “semantic P600” in second language processing: When syntax conflicts with semantics. *Neuropsychologia*, 127, 131-147. [\[DOI\]](#) [\[data\]](#)

**Zheng, X.,** Roelofs, A., Farquhar, J., & Lemhöfer, K. (2018). Monitoring language selection errors in switching: Not all about conflict. *PLoS ONE*, 13, e0200397. [\[Open Access\]](#) [\[data\]](#)

**Zheng, X.,** Roelofs, A., & Lemhöfer, K. (2018). Language selection errors in switching: Language priming or cognitive Control? *Language, Cognition and Neuroscience*, 33, 139-147. [\[Open Access\]](#) [\[data\]](#)

### **Work in progress**

**Zheng, X. Y.,** Hebart, M. N., Dolan, R. J., Doeller, C. F., Cools, R., & Garvert, M. M. (2022). Parallel cognitive maps for short-term statistical and long-term semantic relationships in the hippocampal formation. [\[BioRxiv\]](#)

**Zheng, X. Y.** & Piai, V. (2022). Neural oscillations of interference control in the aging brain: evidence from picture-word interference. [\[BioRxiv\]](#)

## **Conference Presentations**

**Zheng, X. Y.,** Garvert, M. M., Roelofs, J., den Ouden, H. E. M., & Cools, R. (2022). This poster is un-ignorABLE-ish: Learning and generalization of novel compositional meanings. Poster presentation at The 5th Multi-disciplinary Conference on Reinforcement Learning and Decision Making, Providence, United States. [\[FigShare\]](#)

**Zheng, X. Y.,** Hebart, M. N., Behrens, T. E. J., Dolan, R. J., Doeller, C. F., Cools, R., & Garvert, M. M. (2022). *Parallel cognitive maps for statistical and semantic relationships in the hippocampal formation*. Blitz talk at Annual meeting at British Association for Cognitive Neuroscience, Birmingham, United Kingdom.

**Zheng, X.,** Hebart, M. N., Behrens, T. E. J., Dolan, R. J., Doeller, C. F., Cools, R., & Garvert, M. M. (2022). *Parallel cognitive maps for statistical and semantic relationships in the hippocampal formation*. Poster presentation at the NVP Winter Conference on Brain & Cognition, Egmond aan Zee, the Netherlands. [\[FigShare\]](#)

Mainetto, E., den Ouden, H. E. M., Merckx, D., de Haas, A. N., Garvert, M. M., Martin, A. E., Cools, R., & **Zheng, X.** (2022). *Mental representations of word meaning in a sentence context*. Poster presentation at the NVP Winter Conference on Brain & Cognition, Egmond aan Zee, the Netherlands.

van Tiel, B. & **Zheng, X.** (2022). *Learning structure in language: Experimental evidence from artificial language learning*. Poster presentation at the NVP Winter Conference on Brain & Cognition, Egmond aan Zee, the Netherlands.

**Zheng, X.** & Piai, V. (2021). *Neural oscillations of interference control in the aging brain: evidence from picture-word interference*. Short talk presentation at the International Workshop on Language Production. Virtual meeting.

**Zheng, X.,** Roelofs, A., Erkan, H., & Lemhöfer, K. (2019). *The N2 changes during switching but not repetition of language in bilingual picture naming*. Poster presentation at the Organization for Human Brain Mapping (OHBM) Annual Meeting, Rome, Italy.

**Zheng, X.** (2018). *Error monitoring and language control*. Oral presentation at FutureUp! BMI & Partners Annual PhD Students Neuroscience Symposium, Lausanne, Switzerland.

**Zheng, X.,** Roelofs, A., Farquhar, J & Lemhöfer, K. (2018). *Monitoring of language selection errors in switching: Not all about conflict*. Poster presentation at the 10<sup>th</sup> International workshop on language production, Nijmegen, The Netherlands.

**Zheng, X.,** Roelofs, A., Witte, K., & Lemhöfer, K. (2018). *Involuntary Switching and Language Control: In Search for a New Paradigm, or Two*. Poster presentation at the Interdisciplinary Approaches in the Language Sciences

Conference, Nijmegen, The Netherlands.

**Zheng, X.,** Roelofs, A., Farquhar, J., & Lemhöfer, K. (2017). *Error Monitoring in Language Switching: All about Conflict?* Poster presentation at the Annual Meeting of Psychonomic Society, Vancouver, Canada.

**Zheng, X.,** Roelofs, A., Farquhar, J., & Lemhöfer, K. (2017). *Monitoring Language Selection Errors in Switching: All about Conflict?* Oral presentation at the Conference on Multilingualism, Groningen, The Netherlands.

**Zheng, X.,** Roelofs, A., & Lemhöfer, K. (2016). *Language selection errors in switching: enhancement or inhibition?* Poster presentation at the Conference on Multilingualism, Ghent, Belgium.

**Zheng, X., & Lemhöfer, K.** (2015). *"The mouse that chased the cat": reversed anomalies in second language processing.* Poster presentation at the NVP Winter Conference on Cognition, Brain, and Behaviour, Egmond aan Zee, the Netherlands.

**Zheng, X., & Lemhöfer, K.** (2015). *"Semantic P600" in second language processing: when syntax conflicts with semantics.* Oral presentation at the 19<sup>th</sup> Conference of the European Society for Cognitive Psychology (ESCAP), Paphos, Cyprus.

**Zheng, X.,** Krahmer, E., Goudbeek, M., & Cozijn, R. (2015). *What we see tells what we say: combining eye movement and reference production.* Poster presentation at the 12th International Symposium of Psycholinguistics, Valencia, Spain.

**Zheng, X. & Lemhöfer, K.** (2015). *Shallow processing in L2 comprehension: An EEG study in German-Dutch Bilinguals.* Oral presentation at Psycholinguistics in Flanders conference, Marche-en-Famenne, Belgium.

## Invited Talks

*Neural oscillation of interference control in the aging brain: evidence from spoken word production.* Informal talk at the Neuronal Oscillations lab group, University of Birmingham, United Kingdom. November 2022.

*The speaking brain: How do we control our languages in use?* Invited talk at the Ticc Colloquium, Department of Communication and Cognition, Tilburg University, The Netherlands. October 2022.

*How do we control our languages?* Invited talk at the LACG meeting, Language and Cognition Group, Leiden University, The Netherlands. September 2022.

*How do we control our languages?* Invited talk at IMPRS conference: Interdisciplinary Approaches in the Language Sciences, Max Planck Institute for Psycholinguistics, Nijmegen, The Netherlands. June 2022.

*Coffee OF tea: the neural mechanism of cognitive control in bilingual switching.* Psychology Seminars. School of Biological and Behavioural Sciences, Queen Mary University of London, United Kingdom. October 2021.

*The neural mechanism of cognitive control in language production,* International Young Scholars Forum. School of Psychology, Northwest Normal University, Gansu, China. June 2021.

## Supervision Experience

### PhD student

- Elena Mainetto (Radboud University)  
co-supervised with Prof. Roshan Cools and Dr. Hanneke den Ouden 2020 - pres

### Master students:

- Thesis projects:
  - Anna Petukhova (Radboud University) 2022-pres
  - Nora Kennis (Radboud University)

- co-supervised with Dr. Vitória Piai and Dr. Angela de Bruin 2021-2022
- Jonne Roelofs (*Radboud University*) 2021
- Cecilia Husta (*University of Groningen*) 2019
- co-supervised with Dr. Vitória Piai
- **Thesis evaluator** for: Nikita Boers (*Radboud University*) 2022
- **Internship:** Hasan Erkan (*Radboud University*), Anne Billot (*Pierre-and-Marie-Curie University, France, co-supervised with Dr. Vitória Piai*), Julia Egger (*Radboud University*)
- **Lab rotation** (*all Radboud University*): Laura Giglio, Cas Coopmans, Natascha Roos, Natalia Dubinkina, Vivian Vriezakkolk

#### Bachelor students:

- **Thesis projects** (*all Radboud University*): Max Sterling, Rick Alofs, Elena Nicolaou, Daniel Holthuis
- **Honours project** (*all Radboud University*): Kristin Witte (*co-supervised with Dr. Kristin Lemhöfer*), Puck Lange, Lada Zelinski, Lara Burmeister (*co-supervised with Syanah Wynn and Dr. Dennis Schutter*)

## Teaching Experience

**Lecturer/Tutor**, Bachelor's Program in Psychology, Radboud University 2016-2018

- *General introduction to Psychology*
- *Brain and Cognition*
- *Research Project 3: Brain & Cognition*

**Tutor**, Donders Institute for Brain, Cognition and Behaviour 2019, 2020

- *Tool-kit of Cognitive Neuroscience: Advanced Analysis and Source Modelling of EEG and MEG Data*

## Grants & Scholarships

**2-year grant for a parallel postdoc position**, *Language in Interaction* research consortium (co-applicant with Prof. dr. Roshan Cools and Dr. Vitoria Piai) 2022

**4-year PhD grant, DCC internal round (co-applicant)**, Donders Centre for Cognition, Radboud University 2015

**Scholarship for Academic Excellence**, Tilburg University (€ 26,000) 2014, 2013

**KNAW Research Assistants Program**, Tilburg School of Humanities (~€ 7,000) 2014

**Academic Scholarship**, Beijing Normal University (CNY 1300 = ~€ 170) 2010, 2009

## Award, Travel grants & Other funding's

**Postdoc Fellow Award**, Cognitive Neuroscience Society 30<sup>th</sup> Annual Meeting 2023

**Travel grant** by Erasmus+ Staff Mobility for Training, to Basque Center on Cognition, Brain, and Language, San Sebastian, Spain (about € 800) 2019

Radboud Internationalisation **travel grant** for outgoing PhD to Rome, Italy (the Organization of Human Brain Mapping, € 800) 2019

<b>Travel grant</b> by École polytechnique fédérale de Lausanne (EPFL) to Lausanne, Switzerland (about € 1000)	2018
<b>Travel grant</b> by Erasmus+ Staff Mobility for Training, to Technical University of Munich, Munich, Germany (about € 600)	2018
Radboud Internationalisation <b>travel grant</b> for outgoing PhD to Vancouver, Canada (Psychonomic Society Annual Meeting, € 1400)	2017
<b>Bronze Winner</b> . “Challenge Cup” Capital College Students Business Plan Competition (Beijing, China)	2010
<b>Scientific Research and Business Operations of College Students</b> , Beijing ( <i>CNY 10,000 = ~€ 1,300</i> )	2009
<b>Undergraduate Research Fund</b> , Beijing Normal University ( <i>CNY 1,500 = ~€ 200</i> )	2008
<b>Excellent Volunteer</b> . 2008 Summer Olympic Games (Beijing, China)	2008

## Training

<b>Human Brain Project (HBP) Curriculum:</b> cognitive system for non-specialists, <i>Technical University of Munich (Germany)</i>	2018
<b>Donders (f)MRI Tool-kit:</b> From image acquisition to computation model, <i>Donders Institute (The Netherlands)</i>	2018
<b>Workshop on Bayesian analysis with JASP</b> , <i>International Max Planck Research School (The Netherlands)</i>	2017
<b>Tool-kits of Cognitive Neuroscience</b> , Advanced analysis and source modelling of EEG and MEG data, <i>Donders Institute (The Netherlands)</i>	2016
<b>Psychophysics Toolbox Workshop</b> , <i>University Medical Centre Hamburg Eppendorf (Germany)</i>	2014

## Research Skills

<b>Research Methods</b>	EEG/MEG, (f)MRI, Eye-tracking, Experiment design
<b>Programming</b>	Matlab, Python, R
<b>Software Packages</b>	Fieldtrip, Neurobs Presentation, PsychoPy, SPSS, JASP
<b>Languages</b>	Chinese ( <i>native in Mandarin and Wu</i> ), English ( <i>working proficiency</i> ), Dutch ( <i>CEFR C1</i> )

## Other Professional (and non-professional) Activities

<b>Ad-hoc Reviewer.</b> Brain and Language; Psychological Review, Journal of Experimental Psychology: General; Journal of Experimental Psychology: Learning, Memory and Cognition; Neuropsychologia; eNeuro; Lingua; International Journal of Bilingualism; PeerJ; Psychological Research; Applied Psycholinguistics; Frontiers in Human Neuroscience; Journal of Cognitive Psychology; Journal of Neurolinguistics. <i>See my <a href="#">Publons</a> for more details.</i>	2018-pres.
<b>Search committee member</b> , scientific director of Donders Centre for Cognitive Neuroimaging	2022

<b>Recruitment committee member/ Vacancy holder</b> , postdoc position at Donders Institute	2022
<b>Recruitment committee member/ Vacancy holder</b> , research assistant position at Donders Institute	2022
<b>Team Member</b> . Donders Research Data Repository project.	2016-2017
<b>Organizing Committee Member</b> . Donders Inclusion Seminar.	2021
<b>Organizing Committee Member</b> . The Donders Discussions - International PhD conference on Cognition and Neuroscience ( <i>Nijmegen, The Netherlands</i> )	2016
<b>Student Assistant</b> . Tilburg School of Humanities and Digital Sciences ( <i>Tilburg University, The Netherlands</i> )	2014-2015
<b>Invited Panellist</b> . Annual neuroscience symposium <b>Synapsium</b> ( <i>Radboud University, The Netherlands</i> )	2021
<b>Contract Translator</b> . Zheng, X., Zhang, L., & Jiang, W. (2016). Health psychology. China Light Industry Press. Beijing, China. (Original copy: Brannon, L., Feist, J., & Updegraff, J. (2013). <i>Health psychology: An introduction to behaviour and health</i> . United States: Cengage Learning.)	2014
<b>Member of Excellent Volunteer Group</b> . Junior Achievement (JA) China	2010
<b>Volunteer</b> . Beijing Western Sunshine Rural Development Foundation ( <i>China</i> )	2010