

Gorka Fraga González



I am a PhD candidate at the Department of Developmental Psychology of the University of Amsterdam. My main research interest is language development and the underlying neurophysiological processes. I am interested in combining behavioral and neuroimaging studies to better understand how language learning works, and how to improve current educational/remedial programs.

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Education

- 2011 – 2015 **PhD in Developmental Psychology**, University of Amsterdam, The Netherlands.
Project: 'Fluent reading neurocognitively decomposed: the case of dyslexia'. Longitudinal behavioral/EEG studies in 3rd grade children to examine (1) neural markers (ERPs, network analysis) of dyslexia (2) reading gains after training (3) neural changes associated with treatment response. *Promotor:* Prof. Dr. M. W. (Maurits) van der Molen. *Co-Promotors:* Dr. Jurgen Tijms, Dr. Milene Bonte (Maastricht University).
- 2010 – 2011 **Master in Psychology**, University of Groningen, The Netherlands. Master Thesis (30 ECTS) at the Neuroimaging Center of the University Medical Center. *Prefrontal-temporal connectivity and emotion regulation: a DTI comparison between schizophrenia and bipolar disorder*. Supervisor: Dr. Branislava Curcic-Blake. Examiner: Prof. Dr. Andre Aleman.
- 2003 – 2008 **Licenciado in Psychology**. University of Deusto, Bilbao, Spain (Bachelor equivalent. Long cycle degree). Bachelor research practicum at the Psychopedagogy Department. Assisting in preparation of an lexical decision experiment using orthographic and phonological priming. Prof. Ederne Goikoetxea.

Publications

- 2014 **Fraga González, G.**, Žarić, G., Tijms, J., Blomert, L., Bonte, M., & van der Molen, M. W. (2014). Brain-potential analysis of visual word recognition in dyslexics and typically reading children. *Frontiers in Human Neuroscience*, 8(June), 474.
- 2014 Žarić, G., **Fraga González, G.**, Tijms, J., van der Molen, M. W., Blomert, L., & Bonte, M. (2014). Reduced Neural Integration of Letters and Speech Sounds in Dyslexic Children Scales with Individual Differences in Reading Fluency. *PloS one*, 9(10).
- Submitted **Fraga González, G.**, van der Molen, M.J.W., G., Žarić, G., Bonte, M., Tijms, J., Blomert, L., Stam, C.J., Van der Molen, M.W. (*submitted*). Graph Analysis of EEG Resting State Functional Networks in Dyslexic and Typically Reading Children.
- Fraga González, G.**, Tijms, J., G., Žarić, G., Bonte, M., Blomert, L., & van der Molen, M. W. (*submitted*). The beneficial effects of training letter-speech sound integration on reading fluency in children with dyslexia.
- Fraga González, G.**, Žarić, G., Tijms, J., Blomert, L., Bonte, M., & van der Molen, M. W. (*submitted*). Visual ERP Changes in Dyslexia Associated with a Letter-Speech Sound Reading Training.

Žarić, G., **Fraga González, G.**, Tijms, J., van der Molen, M., Blomert, L., and Bonte, M. (*submitted*) Crossmodal deficit in dyslexic children: practice affects the neural timing of letter-speech sound integration.

Presentations

- 2015 **Fraga González, G.**, van der Molen, M.J.W., G., Žarić, G., Bonte, M., Tijms, J., Blomert, L., Stam, C.J., Van der Molen, M.W. (2015, March). Graph Analysis of EEG Resting State Functional Networks in Dyslexic and Typically Reading Children. *Invited presentation* at the Department of Clinical Neuropsychology and MEG Center, Neuroscience Campus Amsterdam, VU University Medical Center, Amsterdam, The Netherlands.
- 2014 **Fraga González, G.**, Žarić, G., Bonte, M., Tijms, J., Blomert, L., and Van der Molen, M. (2014, July). Letter-speech sounds intervention for children with dyslexia: reading fluency gains and neural changes in visual word processing. Oral presentation at the Twenty-First Annual Meeting of the Society for the Scientific Study of Reading, Santa Fe, NM, USA.
- 2014 **Fraga González, G.**, Žarić, G., Bonte, M., Tijms, J., Blomert, L., and Van der Molen, M. (2014, May) Reading fluency neurocognitively decomposed: the case of dyslexia. Invited presentation at the University of Jyväskylä, Jyväskylä, Finland.
- 2013 **Fraga González, G.**, Žarić, G., Bonte, M., Blomert, L., Tijms, J., & van der Molen, M. W. (2013, December). Brain-potential analysis of visual word recognition in dyslexics and typically reading children. Oral presentation at the opening symposium Rudolf Berlin Center, Amsterdam, the Netherlands.
- 2013 **Fraga González, G.**, Žarić, G., Bonte, M., Tijms, J., Blomert, L., Van der Molen, M.W (2013, February). Reading fluency neurocognitively decomposed: the case of dyslexia. Elevator Pitch talk at the course 'From Neuroanatomy to Psychopathology' organized by the School for Mental Health and Neuroscience, Maastricht University.

Posters

- 2015 **Fraga González, G.**, van der Molen, M.J.W., G., Žarić, G., Bonte, M., Tijms, J., Blomert, L., Stam, C.J., Van der Molen, M.W. (2015, June). Graph Analysis of EEG Resting State Functional Networks in Dyslexic and Typically Reading Children. *Poster* presented at the annual conference of the Organization for Human Brain Mapping (OHBM), Honolulu, Hawaii, USA
- 2014 **Fraga González, G.**, Žarić, G., Bonte, M., Tijms, J., Blomert, L., and Van der Molen, M. (2014, June). Letter-speech sounds intervention for children with dyslexia: reading fluency gains and neural changes in visual word processing. Poster pitch at the NIHC Health Pillar Meeting in Utrecht, The Netherlands.
- 2014 Žarić, G., **Fraga González, G.**, Tijms, J., Van der Molen, M., Blomert, L., and Bonte, M. (2014). Failure of letter-speech sound integration as a basis of reading dysfluency in dyslexia. Poster at the Society of Applied Neurosciences (SAN) meeting, Utrecht, NL
- 2013 Žarić, G., **Fraga González, G.**, Tijms, J., Van der Molen, M., Blomert, L., and Bonte, M. (2013, December). Failure of letter-speech sound integration as a basis of reading dysfluency in dyslexia. Poster presented at the Opening symposium Rudolf Berlin Center, Amsterdam, NL

- 2013 Tijms, J., **Fraga González, G.**, Žarić, G., Bonte, M., Blomert, L., & van der Molen, M. W. (2013, September). Success factors of reading intervention for children with severe dyslexia: A neurocognitive window on the training-induced development of reading fluency. Paper presented at the 4th All European Dyslexia Conference in Växjö, Sweden.
- 2013 **Fraga González, G.**, Žarić, G., Bonte, M., Blomert, L., Tijms, J., & van der Molen, M. W. (2013, July). Differences in visual processing of printed words in dyslectic children. Poster presented at the Mid-year Meeting of the International Neuropsychological Society in Amsterdam, the Netherlands.
- 2013 **Fraga González, G.**, Žarić, G., Bonte, M., Blomert, L., Tijms, J., Van der Molen, M. (2013, May). Visual specialization for words in dyslectic and typically reading children. Poster presented at the International Workshop on Reading and Developmental Dyslexia, San Sebastián, Spain.

Teaching experience

- 2015 **Supervisor of bachelor project (psychology).** *University of Amsterdam, The Netherlands.* Supervised a group of 4 students in writing a research report. Students also performed behavioral assessments in schools as part of a project on 'bibliotherapy' with the IWAL institute.
- 2013,2014 **Supervisor of bachelor students (psychobiology).** *University of Amsterdam, The Netherlands.* Supervised two groups of 4 students in writing a brief literature review ('miniscripties').
- 2012 **Master thesis supervision.** *University of Amsterdam, The Netherlands.* Supervised 2 theses of students that participated in EEG data collection with children, pre-processed and analyzed data.
- 2012 **Bachelor thesis supervision (psychobiology).** *University of Amsterdam, The Netherlands.* Supervised a group of 3 students that participated in EEG data collection with children, pre-processed and analyzed data.

Organizational experience

- 2014 **Organizing committee of NIHC 'Health Pillar' meeting.** *Utrecht, The Netherlands* (June 16th). Assisting in organization of the 'Innovative Program 2' session (invitation of speakers, identifying stakeholders and keynote speakers, elaboration of the event program details).

Further Education

- 2014 **MEG/EEG Summer school.** (25th - 29th August). *Jyväskylä Centre for Interdisciplinary Brain Research, University of Jyväskylä, Finland.* Theoretical and hands on sessions covering topics such as: EEG analysis in SPM, connectivity and time-frequency analysis, permutation based analysis of ERP.
- 2014 **Analyzing Neural Time Series Data** (27th, 29th, 31st October). *Organized by EPOS graduate education network, the Netherlands.* Introduction to advanced neural time series (EEG/MEG/LFP) analysis.
- 2013 **Cognitive electrophysiological methods** (5th February – 28th March). *Organized by EPOS graduate education network, the Netherlands.* Advanced processing and analysis of MEG and EEG data

- 2013 **From human neuroanatomy to psychopathology** (25th-28th February). *School for Mental Health and Neuroscience, Maastricht University, The Netherlands*. Interdisciplinary course including lectures and hands-on sessions on neuroanatomy, functional and anatomical MRI methodologies and findings on neuropsychiatric disorders.
- 2011 **FMRI Course**. *Department of Neuroscience/BCN Neuroimaging Centre of the University Medical Center Groningen*. Basic MRI physics and BOLD physiology, General Linear Model in fMRI data and analysis using SPM. Elaboration of a cookbook of DTI Probabilistic Tractography as a supplement for this course.
- 2009 **Language Teaching to Adults** (22nd June - 3rd July). *London, UK*. Intensive course of Goldsmith College of London in cooperation with Instituto Cervantes.
- 2008 **School of Psychology José Germain . Psychology on Adaptation Processes** (25th -29th August). *Menéndez Pelayo International University. Santander, Spain*.

Professional Memberships

- Society for the Scientific Study of Reading (SSSR)
- Brain & Cognition priority program
- Society for Psychophysiological Research (SPR)
- Organization for Human Brain Mapping (OHBM)

Skills

Personal skills

- Good team player and experienced working in multicultural and multidisciplinary environments
- Flexible and experienced in a variety of analysis methods (both behavioral and neuroimaging)

Computer skills

- Operating systems Windows, Linux, MacOS
- MS Office Suite
- SPSS, R
- MATLAB
- EEG analysis software: Brain Vision Analyzer, EEGLab (Matlab toolbox), Brainwave
- MRI analysis software: MRICro, MRICron, FSL
- *Other*: Presentation, E-Prime, word listing databases (Buscapalabras, Lexin, CELEX), Gimp

Languages

- Spanish (native speaker)
- English (proficient, Academic IELTS 7.5)
- Dutch (intermediate level course at University of Amsterdam)

Further Experience

- 2010 **Youth in action training Course 'Outside EU is Europe'** (1st -7th May). *Craiova, Romania*. Course on European Citizenship Funded by a Youth in Action Program.

- 2009 – 2010 **European Voluntary Service.** *Stichting Kwintes, Almere, The Netherlands.* A 12-month programme funded by the European Commission. Assisting day activity center for people with long term social or psychological problems.
- 2005 **Home-care Cognitive Stimulation.** *Red Cross Centre (Pausoka), Bilbao, Spain.* 3-month internship. *Face-to-face cognitive rehabilitation sessions with patients with mild dementia or early stages of Alzheimer's disease.*