Esti Blanco-Elorrieta

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EDUCATION

Ph.D.: **New York University** (expected May 2020)
Psychology (Supervisor: Liina Pylkkänen)
Thesis: *Towards an ecologically valid neuroscience of bilingualism*.

Harvard University (visiting fellow, 2018-2019)
Psychology (Supervisor: Alfonso Caramazza)

M.Sc.: **Basque Center on Cognition, Brain and Language** (Honors, 2013)
Cognitive Neuroscience of language.

B.A.: **University of Deusto** (Honors, 2012)
Basque philology and Linguistics

FELLOWSHIPS AND AWARDS

2019: Forbes 30 under 30 in Science
2019: Martin Braine Fellowship in Psychology (awarded to the best student in the department).
2018: Dingwall Foundation: Dissertation Award in the Cognitive, Clinical, and Neural Foundations of Language ($30,000).
2018: New York University: Dean's Student Travel Grant.
2017: Predoctoral fellow merit award: Society of the Neurobiology of Language (SNL).
2017: Woodcock Institute for the advancement of neurocognitive research ($9,951).
2016: Helmsley Fellowship for cross-disciplinary research ($2,350).
2016: New York University: Dean's Student Travel Grant.
2015: Neurobiology of Language Conference: Travel Award.
2015: New York University: MacCracken Fellowship (full funding of tuition and maintenance).
2014: La Caixa Foundation: fellowship for Graduate Studies in North America (4% success rate).
2012: BCBL: academic scholarship waiver of M.Sc. tuition fees (awarded to the most promising incoming students).
2011: Basque Government: grant for undergraduate research projects (€3,300).
2010: University of Deusto: grant for undergraduate research projects (€3,000).
2008: Basque Government: Distinguished Academic scholarship (top 1% students graduating high school in the country).

MANUSCRIPTS AND PUBLICATIONS

1. Honari-Jahromi, M., Chouinard, B., Fyshe, A., **Blanco-Elorrieta**, E., & Pylkkänen, L. (*under review*). Machine learning semantics indicate differential encoding of adjective and nouns in simple compositional phrases.

2. **Blanco-Elorrieta, E*.,** Gwilliams, L*., Marantz, A., & Pylkkänen, L. (*under review*). Neural bases of perceptual adaptation to foreign accents.

3. **Blanco-Elorrieta** & Caramazza, A. (*under review*). A selection-by-activation model of bilingual lexical access.

4. **Blanco-Elorrieta, E.,** Ding, N., Pylkkänen, L., & Poeppel, D. (*under review*). Understanding requires tracking: Noise and knowledge interact in bilingual language comprehension.

5. Liu, H., Zhang, Y., **Blanco-Elorrieta**, E., Hea, Y., Chen, B. (2019). Role of proactive control on subcomponents of language control: Evidence from trilinguals. *Cognition, 194,* 104055.

6. **Blanco-Elorrieta, E.,** & Pylkkänen, L. (2018). Ecological validity in bilingualism research and the bilingual advantage. *Trends in Cognitive Sciences,* 22(12), 1117-1126

7. **Blanco-Elorrieta, E.,** Emmorey, K., & Pylkkänen, L. (2018). Language switching decomposed through MEG and evidence from bimodal bilinguals. *Proceedings of the National Academy of Sciences, 115(39),* 9708-9713.

8. **Blanco-Elorrieta, E.,** Kastner, I., Emmorey, K., & Pylkkänen, L. (2018). A shared neurobiology for building phrases in signed and spoken language. *Scientific Reports,* 8, 5492.

9. **Blanco-Elorrieta, E.** Emmorey, K., & Pylkkänen, L. (2017). Decoding Language Switching in the Bilingual Brain: evidence from simultaneous speech and sign production. *Cognitive Computational Neuroscience (CCN)*.

10. Fyshe, A., **Blanco-Elorrieta, E.** & Pylkkänen, L. (2017). The neural representation of concepts during composition. *Cognitive Computational Neuroscience (CCN).*

11. **Blanco-Elorrieta, E.,** Ferreira, V.S., Del Prato, P., & Pylkkänen, L. (2017). The priming of basic combinatory responses in MEG. *Cognition,* 70, 49-63.

12. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2017). Bilingual language switching in the lab vs. in the wild: The spatio-temporal dynamics of adaptive language control. *The Journal of Neuroscience*, 37: 9022-9036.

13. **Blanco-Elorrieta, E**. & Pylkkänen, L. (2016). Bilingual language control in perception vs. action: MEG reveals comprehension control mechanisms in anterior cingulate cortex and domain-general production control in dorsolateral prefrontal cortex. *The Journal of Neuroscience,* 36(2): 290 – 301.

14. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2016). Composition of complex numbers: Delineating the computational role of the left anterior temporal lobe. *NeuroImage*, *124, 194 - 203.*

15. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2015). Brain bases of language selection: MEG evidence from Arabic-English bilingual language production. *Frontiers in Human Neuroscience*, 9.

16. Pylkkänen, L., Bemis, D.K. & **Blanco-Elorrieta, E**. (2014). Building phrases in language production: An MEG study of simple composition. *Cognition*, 133, 371-384.

INVITED TALKS

1. **Blanco-Elorrieta, E. (2019).** The challenges of understanding bilingual speech in noise. *British Academy for Cognitive Neuroscience.* University of Cambridge, UK.

2. **Blanco-Elorrieta, E. (2018).** The neurobiology of bilingualism: Insight from MEG. *The bilingual mind seminars.* University of the Basque Country, Basque Country.

3. **Blanco-Elorrieta, E. (2018).** The neurobiology of bilingualism: Insight from MEG. *Language and Cognition Colloquium.* Harvard University, USA.

4. **Blanco-Elorrieta, E. (2018).** The neurobiology of bilingualism: insight from MEG. *Psychology Cognitive Brown Bag*. University of California San Diego (UCSD), USA.

5. **Blanco-Elorrieta, E. (2017).** The neurocognition of bilingualism. *Young Leaders of the Americas Initiative (YLAI)*, New York, USA.

6. **Blanco-Elorrieta, E. (2017).** Bilingual language switching in the lab vs. in the wild: The spatio-temporal dynamics of adaptive language control. *Summer school on Bilingualism and Multilingualism*, Barcelona, Spain.

7. **Blanco-Elorrieta, E. (2016).** Brain bases of bilingual language selection and switching: Evidence from production and comprehension. *Neurolinguistics Supper Colloquium*. Graduate Center of the City University of New York, New York, USA.

CONFERENCE TALKS

1. **Blanco-Elorrieta, E.** Emmorey, K., & Pylkkänen, L. (2018). Task switching decomposed: MEG evidence from bimodal language switching. Cognitive Neuroscience Society (CNS), Boston, USA.

2. **Blanco-Elorrieta, E.** Emmorey, K., & Pylkkänen, L. (2017). Turning a language "off" is cognitively effortful, but turning a language "on" is not: MEG evidence from bimodal language switching. Society for the Neurobiology of Language (SNL) Annual Conference, Baltimore, USA.

3. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2016). While language-switching in the lab localizes in anterior cingulate cortex, comprehending code-switches in the wild engages the auditory cortex: MEG evidence from Arabic-English bilinguals. 22nd AMLaP Conference in Bilbao, Basque Country.

4. **Blanco-Elorrieta, E**., Ferreira, V.S., Del Prato, P., & Pylkkänen, L. (2016). The priming of basic combinatory responses in MEG. 29th CUNY Conference on Human Sentence Processing, Florida, USA.

5. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2015). Switch mechanisms revealed by MEG: What is special about language switching?. Neuroscience of Language Workshop, Abu Dhabi, UAE.

6. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2015). Bilingual language control: domain general in production but not comprehension? Evidence from MEG. 5th Linguistics in the Gulf Conference, Doha, Qatar.

7. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2015). Brain bases of language selection: MEG evidence from Arabic-English bilingual language production. NYUAD Annual Research Conference, Abu Dhabi, U.A.E.

POSTER PRESENTATIONS

1. **Blanco-Elorrieta, E.,** Gwilliams, L., Pylkkänen, L., & Maranz, A. (2019). Prefrontal cortex aids adaptation to accented speech. Cognitive Neuroscience Society (CNS) Conference, San Francisco, USA.

2. **Blanco-Elorrieta, E.,** Gwilliams, L., Pylkkänen, L., & Maranz, A. (2019). Prefrontal cortex aids adaptation to accented speech. Cognitive Neuroscience Society (CNS) Conference, San Francisco, USA.

3. **Blanco-Elorrieta, E.,** Ding, N., Pylkkänen, L., & Poeppel, D. (2018). The impoverished comprehension of non-native speech in noise. Society for Neuroscience (SfN) Annual Conference, San Diego, USA.

4. **Blanco-Elorrieta, E.,** Ding, N., Pylkkänen, L., & Poeppel, D. (2018). The impoverished comprehension of non-native speech in noise. Society for the Neurobiology of Language (SNL) Annual Conference, Quebec City, Canada.

5. **Blanco-Elorrieta, E.** Emmorey, K., & Pylkkänen, L. (2018). Task switching decomposed: MEG evidence from bimodal language switching. Cognitive Neuroscience Society (CNS) Annual Conference, Boston, USA.

6. **Blanco-Elorrieta, E.** Emmorey, K., & Pylkkänen, L. (2017). Decoding Language Switching in the Bilingual Brain: evidence from simultaneous speech and sign production. Cognitive Computational Neuroscience (CCN), New York, USA.

7. Fyshe, A., **Blanco-Elorrieta, E**. & Pylkkänen, L. (2017). The neural representation of concepts during composition. Cognitive Computational Neuroscience (CCN), New York, USA.

8. **Blanco-Elorrieta, E**., Ferreira, V.S., Del Prato, P., & Pylkkänen, L. (2016). The priming of basic combinatory responses in MEG. Society for the Neurobiology of Language (SNL) Annual Conference, London, UK.

9. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2016). While language-switching in the lab localizes in anterior cingulate cortex, comprehending code-switches in the wild begins in auditory cortex: MEG evidence from Arabic-English bilinguals. Society for the Neurobiology of Language (SNL) Conference, London, UK.

10. **Blanco-Elorrieta, E**., Ferreira, V.S., Del Prato, P., & Pylkkänen, L. (2016). The priming of basic combinatory responses in MEG. Cognitive Neuroscience Society (CNS) Annual Conference, New York, USA.

11. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2016). Bilingual language control in perception vs. action: MEG reveals comprehension control mechanisms in anterior cingulate cortex and domain-general production control in dorsolateral prefrontal cortex. 29th Annual CUNY Conference on Human Sentence Processing, Gainesville, USA.

12. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2015). Switching in perception vs. action revealed by MEG: Reactive control in the ACC and proactive control in the dorsolateral PFC. Society for the Neurobiology of Language (SNL) Annual Conference, Chicago, USA.

13. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2015). Composition of Complex Numbers: Delineating the computational role of the left anterior temporal lobe. Society for the Neurobiology of Language (SNL) Annual Conference, Chicago, USA.

14. Oseki Y., Gwilliams, L., Gaston, P., **Blanco-Elorrieta, E.,** Pykkänen, L. & Marantz, A. (2015). Neural dynamics of morphological and phrasal composition. Society for the Neurobiology of Language (SNL) Annual Conference, Chicago, USA.

15. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2014). Brain bases of language selection: MEG evidence from Arabic-English bilingual language production. Society for the Neurobiology of Language (SNL) Annual Conference, Amsterdam, The Netherlands.

16. Martin, C.D., **Blanco-Elorrieta, E.,** & Duñabeitia, J.A. (2013). An alternative explanation to asymmetrical switch-costs in unbalanced bilinguals. Annual Psychonomics Conference, Toronto, Canada.

TEACHING

Teaching assistant (NYU):

2019: Psychology and Linguistics: *Neurolinguistics*. (Graduate and Undergraduate).

2018: Psychology: *Introduction to Psychology*. (Undergraduate).

2018: Psychology: *Cognition* (Undergraduate).

2017: Psychology: *Cognition* (Undergraduate).

2016: Psychology and Linguistics: *Neural Bases of Language.* (Graduate and Undergraduate).

Guest lectures:

2019: *Neural bases of Language:* Lecture on the neurobiology of language switching

2017: *Neurolinguistics.* Lecture on bilingual language control, bilingualism and aging (Young Leaders of the Americas Initiative (YLAI at NYC).

2017: *Cognition.* Lecture on language and cognition (NYU).

2016: *Neural Bases of Language.* Lecture on the neurobiology of bilingualism (NYU).

2016: *Neural Bases of Language.* Lecture on the neural bases of perceptual attunement (NYU).

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

2018 – present Elected Board Member, Society for the Neurobiology of Language

2016 – present Member, Society for Neuroscience

2015 – present Member, Cognitive Neuroscience Society

2014 – present Member, Society for the Neurobiology of Language

ACADEMIC SERVICE

a) Ad hoc reviewer for:

Journals: Cognition; Scientific Reports; Human Brain Mapping; Proceedings of the National Academy of Sciences, Plos Biology*;* Journal of Neuroscience; NeuroImage; Brain and Language; Language, Cognition and Neuroscience; Journal of Cognitive Psychology; Journal of Neurolinguistics, Bilingualism: Language and Cognition.

Grants: Polish Ministry of Science and Higher Education, Polish National Centre for Research and Development.

b) Elected Student Representative.

Society for the Neurobiology of Language (2019-2022)

Undergraduate linguistics program (2008 –2012).

RESEARCH EXPERIENCE

2013- 2015: Research assistant.
Institution: New York University Abu Dhabi (Neuroscience of Language Lab).
Supervisors: Alec Marantz and Liina Pylkkänen.

2012 – 2013: Research assistant.
Institution: Basque Center on Cognition, Brain and Language (BCBL).

2011 - 2012: Research assistant.
Institution: University of Deusto (Tesitek Linguistics Research Group).
Supervisor: Rosa Miren Pagola.

OTHER EDUCATION

Summer Course: Genetics & Neurobiology of Language Course. Cold Spring Harbor Laboratories (2016).

Summer University: German language and literature. Westfälische Wilhems-Universität. Münster, Germany (2011).

Summer University: German language and literature. Heinrich-Heine Universität. Düsseldorf, Germany (2010).

LANGUAGES

Basque: Native speaker. Certificate of Proficiency in Basque (EGA).

Spanish: Native speaker.

English: Cambridge Certificate of Proficiency in English (CPE), 113 internet Based Test TOEFL.

German: Upper Intermediate (B2 European Framework of Reference).

Galician: Elementary (A2 European Framework of Reference).

French: Elementary (A1 European Framework of Reference).