Esti Blanco-Elorrieta

Psychology Department New York University 8 Washington Place, 10003, New York

Email: eb134@nyu.edu Website: https://estiblancoelorrieta.github.io/ Updated: July, 2024

ACADEMIC EMPLOYMENT

Assistant Professor: New York University (2023 -)

> Department of Psychology Department of Neural Science

Post-doctoral fellow: Harvard University (2020 – 2023)

Cognitive Neuropsychology Lab (PI: Alfonso Caramazza)

Department of Psychology

EDUCATION

Ph.D.: **New York University** (2015 – 2020)

Psychology (Supervisor: Liina Pylkkänen)

Thesis: Towards an ecologically valid neuroscience of bilingualism.

Harvard University (research fellow, 2018 – 2019)

Psychology (Supervisor: Alfonso Caramazza)

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

Cognitive Neuroscience of language.

University of Deusto (Honors, 2012) **B.A.:**

Basque philology and Linguistics

AWARDS AND SCHOLARSHIPS

2021: Glushko dissertation award: Cognitive Science Society.

2021: NYU-wide Outstanding dissertation award in the basic sciences.

2021: Graduate School of Arts and Sciences: Outstanding dissertation award.

2020: Ben Barres fellowship for post-doctoral research.

2020: Coons/Leibowitz graduate student teaching award.

2019: Forbes 30 under 30 in Science.

2019: Martin Braine Fellowship in Psychology.

2018: Dingwall Foundation Award in the Cognitive, Clinical, and Neural Foundations of Language.

2018: New York University: Dean's Student Travel Award.

2017: Society of the Neurobiology of Language: Predoctoral fellow merit award.

2017: Woodcock Institute Award for the advancement of neurocognitive research.

2016: Helmsley Fellowship for cross-disciplinary research.

2016: New York University: Dean's Student Travel Award.

2015: Neurobiology of Language Conference: Travel Award.

2015: New York University: MacCracken Fellowship for doctoral studies.

2014: La Caixa Foundation: fellowship for graduate studies in North America (4% success rate).

BCBL: academic scholarship (awarded to the 5% most promising incoming students). 2012:

2011: Basque Government fellowship for undergraduate research projects.

2010: University of Deusto: Dean's fellowship for undergraduate research projects.

2008: Basque Government: Distinguished Academic scholarship (top 1% students graduating high school in

the country).

FUNDING

Influence of multilingualism on brain plasticity and development (\$27,140)

Funding Agency: NYU (type: Mega-grants initiative award) **Award Period:** January 2024 - January 2025 // **Role:** PI

Language-specific and language-general mechanisms in bilingual aphasic individuals (\$1,003,338)

Funding Agency: NIH/NIDCD (type: K99/R00, 1K99DC019973-01)

Award Period: June 2022 - May 2027 // Role: PI

ATOM (Adaptations to Multilingualism) (68.365,00 €).

Funding Agency: Ministry of Science (type: PID2021-124399NA-I00). **Award Period:** September 2022 – September 2025 // **Role:** Advisory team

MANUSCRIPTS AND PUBLICATIONS

- 23. **Blanco-Elorrieta, E.** (2024). Is adaptation the new "bilingual advantage"?. *Trends in Cognitive Sciences.* 1-8.
- 22. Abdullah, L., **Blanco-Elorrieta, E,** & Valdez, D. L. (2024). "¿ Cómo qué, cómo qué? cómo qué?" Single-language echolalia in a bilingual female with progressive supranuclear palsy: a case report. *Neurocase*, 1-8.
- 21. Baus, C., Millan, I., Chen, X. J., & **Blanco-Elorrieta, E.** (2024). Exploring Language Comprehension through Cortical Tracking: the bilingual test case. *Neurobiology of Language*, 1-28.
- 20. Abdullah, L., Valdez, D., **Blanco-Elorrieta, E.,** (2023). Single-language echolalia in a bilingual female with Progressive Supranuclear Palsy: A case report. *Archives of Clinical Neuropsychology*, 38(7), 1482-1482.
- 19. Zhu, J., **Blanco-Elorrieta, E.,** Sun, Y., Szakay, A, & Sowman, P. (2022). Natural vs. forced language switching: free selection and consistent choices eliminate significant performance costs and cognitive demands in the brain. *NeuroImage*, 247, 188797.
- 18. **Blanco-Elorrieta, E.***, Hauptman, M.*, & Pylkkänen, L. (2021). Inflection across categories: Tracking abstract morphological processing in language production with MEG. *Cerebral Cortex*, 309.
- 17. **Blanco-Elorrieta, E.** & Caramazza, A. (2021). On the need of theoretically guided approaches to possible bilingual advantages: an evaluation of the potential loci in the language and executive control systems. *Neurobiology of Language*, 1-16.
- 16. Honari-Jahromi, M., Chouinard, B., Fyshe, A., **Blanco-Elorrieta**, **E.**, & Pylkkänen, L. (2021). Neural representation of words within phrases:Temporal evolution of color-adjectives and object-nouns during simple composition. *Plos One*, 16(3), e0242754.

- 15. **Blanco-Elorrieta, E.** & Caramazza, A. (2021). A common selection mechanism at each linguistic level in bilingual and monolingual language production. *Cognition*, 104625.
- 14. **Blanco-Elorrieta, E*.,** Gwilliams, L*., Marantz, A., & Pylkkänen, L. (2020). Adaptation to mis-pronounced speech: evidence for a prefrontal-cortex repair mechanism. *Nature Scientific Reports*, 11, 97.
- 13. **Blanco-Elorrieta, E.,** Ding, N., Pylkkänen, L., & Poeppel, D. (2020). Understanding requires tracking: Noise and knowledge interact in bilingual language comprehension. *Journal of Cognitive Neuroscience*. 32(10), 1975-1983.
- 12. 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.
- 11. **Blanco-Elorrieta, E.,** & Pylkkänen, L. (2018). Ecological validity in bilingualism research and the bilingual advantage. *Trends in Cognitive Sciences*, 22(12), 1117-1126
- 10. **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.
- 9. **Blanco-Elorrieta, E.,** Kastner, I., Emmorey, K., & Pylkkänen, L. (2018). Shared neural correlates for building phrases in signed and spoken language. *Nature Scientific Reports*, 8, 5492.
- 8. **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)*.
- 7. Fyshe, A., **Blanco-Elorrieta, E.** & Pylkkänen, L. (2017). The neural representation of concepts during composition. *Cognitive Computational Neuroscience (CCN)*.
- 6. **Blanco-Elorrieta, E.,** Ferreira, V.S., Del Prato, P., & Pylkkänen, L. (2017). The priming of basic combinatory responses in MEG. *Cognition*, 70, 49-63.
- 5. **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.
- 4. **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.
- 3. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2016). Composition of complex numbers: Delineating the computational role of the left anterior temporal lobe. *NeuroImage*, 124, 194 203.
- 2. **Blanco-Elorrieta, E.** & Pylkkänen, L. (2015). Brain bases of language selection: MEG evidence from Arabic-English bilingual language production. *Frontiers in Human Neuroscience*, 9.
- 1. 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 [last 5 years]

- 34. *Keynote Speaker*. 5th International Conference on Theoretical East Asian Psycholinguistics, Tokyo, Japan. (2025, April).
- 33. *Colloquium Speaker. Department of Communicative Sciences and Disorders*, New York University, USA (2025, March).
- 32. Colloquium Speaker. Neuroscience Graduate Program, UC San Diego, USA. (2025, February).
- 31. Colloquium Speaker. Language and Communicative Disorders Speaker Series, SDSU, USA. (2025, February).
- 30. *Keynote Speaker. Adaptations to Multilingualism/Bilingualism and the Role of Linguistic Proximity.* Universidad Autonoma de Barcelona, Catalunya (2025, February).
- 29. Keynote Speaker. Stony Brook, Yale, NYU & CUNY (SYNC) Linguistics Conference, USA. (2024, December).
- 28. Colloquium Speaker. USA & Spain bridge for the neurosciences colloquium, King Juan Carlos Center, NY, USA. (2024, October).
- 27. *Colloquium Speaker. Speech-Language-Hearing Sciences*, The Graduate Center of CUNY, USA. (2024, October).
- 26. *Invited Speaker*. 2025-2029 Strategic Plan Development Workshop. University of Mondragon, Basque Country. (2024, March).
- 25. Plenary Speaker, Architectures and Mechanisms for Language Processing AMLaP Conference, Donostia-San Sebastian, Basque Country. (2023, August).
- 24. *Plenary Speaker, XVI International Symposium of Psycholinguistics*, Vitoria-Gasteiz, Basque Country. (2023, May; available here).
- 23. *Colloquium Speaker, Donostia International Physics Center*. Donostia-San Sebastian, Basque Country. (2023, March; available <u>here</u>).
- 22. *Keynote Speaker, Perspectives on Multilingualism: An Interdisciplinary Roundtable.* NYUAD Research Institute, New York, USA. (2023, January; available <u>here</u>).
- 21. *Symposium Speaker. Dementia and Alzheimer in Low and Middle Income Countries*, Nairobi, Kenya. (2022, December).
- 20. Colloquium Speaker. Cognitive Sciences Program Weekly Speaker Series, Dartmouth University, USA. (2022, October).
- 19. Symposium Speaker. Intersectional Experiences in Academia, University of Oslo, Norway. (2022, March).
- 18. Colloquium Speaker. Psychology Department Seminar, New York University, USA. (2022, March).
- 17. Colloquium Speaker. Cognitive Science Seminar, Johns Hopkins University, USA. (2022, March).
- 16. Colloquium Speaker. Language and Cognitive Science Seminar, Delaware University, USA. (2022, March).
- 15. Colloquium Speaker. Princeton Neuroscience Institute Seminar Series, Princeton University, USA. (2022, March).

- 14. *Colloquium Speaker. Neuroscience Research Research Seminar Series*, University of Texas Rio Grande Valley, USA. (2022, February).
- 13. Colloquium Speaker. Cognitive Area Talk, University of Michigan, Ann Arbor, USA. (2022, January).
- 12. Colloquium Speaker. Aphasia Community Group Seminar Series, Boston University, USA. (2021, November).
- 11. Colloquium Speaker. Language and Brain Colloquium, University of Florida, USA. (2021, October).
- 10. Colloquium Speaker. Department of Language Science, University of California Irvine, USA. (2021, March).
- 9. *Plenary speaker. Young Scholar Speaker Series*, Pennsylvania State University, USA. (2021, March).
- 8. Colloquium Speaker. NIH National Institute on Aging's Virtual Workshop, USA. (2021, March).
- 7. TEDx Talk, Tarragona, Spain. (August 2020).
- 6. Ev Lab, MIT, Cambridge, USA. (May 2020).
- 5. Colloquium Speaker. Dartmouth University, New Hampshire, USA. (May 2020).
- 4. *Meet the author series*, Linguistics Department, NYU, USA. (March 2020).
- 3. *Mesgarani lab*. Columbia University, New York, USA. (March 2020).
- 2. Entre cuatro paredes. Expatriados & Co., New York, USA. (March 2020).
- 1. Colloquium Speaker. Linguistics. Cornell University, Ithaca, USA. (February 2020).

TEACHING

Teaching Instructor (NYU):

Fall 2024: Undergraduate Cognition Spring 2024: Undergraduate Cognition Fall 2024: Undergraduate Cognition

Teaching Assistant (NYU):

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

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

Spring 2018: Psychology: *Cognition* (Undergraduate). Spring 2017: Psychology: *Cognition* (Undergraduate).

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

Guest lectures & Summer schools:

- 2025: Graduate School of Linguistics (LOT). Week-long summer course on neurolinguistics (Radboud University).
- 2022: Linguistics and Cognitive Science. Lecture on the neural bases of bilingualism (NYU).
- 2020: Cognitive Psychology. Lecture on bilingualism and sign language cognition (Darmouth).
- 2019: Neural bases of Language: Lecture on the neurobiology of bilingualism (NYU).
- 2017: Neurolinguistics. Lecture on bilingualism and aging (Young Leaders of the Americas Initiative).

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

2020 – 2022 Accessibility and Diversity Committee, Society for the Neurobiology of Language

2018 – 2021 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

ADVISING AND MENTORING

PhD advisees:

2024-present Aditi Singh

2023-present Jessica Chen, Maya Taliaferro (Psychology, NYU)

Undergraduate thesis:

2022-2023 Alisa Ragassa (Psychology, Harvard)

Dissertation committee:

Natália Pinheiro (Linguistics, Federal University of Santa Catarina in Brazil)

Alline-Priscillia Mess (Psychology, NYU) Jessica Goebbel (Linguistics, NYU)

Advisory committee:

Hanxiao Lu (Psychology, NYU) Meghan Kalvey (Psychology, NYU)

ACADEMIC SERVICE

- a) Ad hoc journal reviewer: Nature Reviews Psychology; Neurobiology of Language; Cognition; Scientific Reports; Human Brain Mapping; Proceedings of the National Academy of Sciences, PLOS Biology; PLOS One; Journal of Neuroscience; NeuroImage; Brain and Language; Language, Cognition and Neuroscience; Journal of Cognitive Psychology; Journal of Neurolinguistics, Bilingualism: Language and Cognition; Cerebral Cortex; Journal of Cognitive Neuroscience.
- **b)** Ad hoc grant reviewer: National Science Foundation (NSF) Linguistics and Developmental Sciences Program Panel; Polish Ministry of Science and Higher Education; Polish National Centre for Research and Development; Rochester Neuroscience Grant Program.

c) **Ad hoc conference reviewer:** Architectures and Mechanisms for Language Processing (AMLaP), Society for the Neurobiology of Language, International Symposium on Bilingualism, International Conference on Theoretical East Asian Psycholinguistics.

c) Conference organization:

Program committee (Society for the Neurobiology of Language annual meeting; 2020, 2021).

d) Elected Representative:

Society for the Neurobiology of Language (2019-2022); Linguistics student body (University of Deusto; 2008-2012).

SCIENTIFIC OUTREACH

- 2024: Interview at "The Science of Perception Box" podcast, USA.
- 2024: Outreach Talk at "Sin Fronteras" Educational in Madrid, Spain.
- 2023: Outreach Talk on Bilingualism and Child Development at Montessori School in Williamsburg, NYC.
- 2023: Interview in La Mecanica del Caracol radio program on language policy (here, in Spanish).
- 2023: Interview in El Diario Vasco newspaper on language evolution (here, in Spanish).
- 2023: Interview on Berria newspaper about the prejudices around multilingualism (here, in Basque).
- 2023: Podcast episode on the psychology, neuroscience and philosophy of multilingualism (<u>here</u>, in English).
- 2023: 'De ondas de sonido a significado' Outreach talk at the University of the Basque Country.
- 2023: Radio program at EITB discussing the bilingual brain (available <u>here</u> in Spanish).
- 2023: 'How Does the Bilingual Brain Process Language?' Public talk at NYUAD Institute (here, in English).
- 2023: 'Como funciona el cerebro bilingüe?' Talk at San Telmo Museum *NanoNeuro* series (<u>here</u>, in Spanish).
- 2022: TV Interview on the effects on multilingualism on the brain in EITB (available <u>here</u>, in Basque).
- 2022: Interview on multilingualism and language policies in El Español newspaper (available here, in Spanish).
- 2022: Interview at 'Gure artean' podcast, EiTB.
- 2021: Panelist and Organizer, Early Career Event, Society for the Neurobiology of Language.
- 2021: Speaker, Doctoral Student Welcome Event, New York University.
- 2021: TED en Español Podcast episode (available <u>here</u>, in Spanish).
- 2021: Interview in Archiletras bi-monthly scientific magazine (available here, in Spanish).
- 2021: Baipasa: weekly contribution to science radio program (available <u>here</u>, in Basque).
- 2020: Interview in a TV episode of 'The brain hunter' (available here, in Spanish).
- 2020: TED Talk in Spain, 2020 (available here, in Spanish).
- 2020: Interview on the Neurobiology of multilingualism on COPE radio (available here, in Spanish).
- 2020: Interview on the architecture of the multilingual brain in RTVE Spanish radio (available here, in Spanish).
- 2019: 'How to build a career in Science' panelist; Young Leaders of the America Initiative (YLAI).
- 2019: 'How does switching between languages impact your body?' Inspire series by Euronews (here in English).

(TRANS)GENDER ADVOCACY

- 2024: Interview on TODAY newspaper on gender affirming voice therapy (available here, in English)
- 2022: University of Oslo: Intersectional Experiences in Academia workshop. Panelist and workshop leader.
- 2021: Spanish ministry for Gender Equality: advisory committee.
- 2021: 'Identity, language, and the future' Twitch interview for 'The Future Game' (available here, in Basque).

- 2021: Bayer pharmaceutical Latin-American branch: Pride event panelist.
- 2021: 'Non-binary' feature documentary on trans experience (available here, English subtitles).
- 2020: ELA Basque Trade Union: Pride event panelist.
- 2020: National Organization of Gay and Lesbian Scientists and Technical Professionals: Speaker, career panel.
- 2020: Harvard Women in STEM Initiative, Mentor.
- 2019: The Lesbian, Gay, Bisexual & Transgender Community Center: Panelist, 'Being trans* in Academia.'

MEDIA COVERAGE (selected)

- 2023: Newspaper interview in *Diario Vasco* on language and evolution (here, in Spanish).
- 2023: Radio interview at *Radio Vitoria* on how the human brain processes language (<u>here</u>, in Spanish).
- 2023: Interview on *Nius Diario* on the myths around bilingualism and the brain (here, in Spanish).
- 2023: Interview in *The New York Times* on bilingualism and aging (here, in English).
- 2023: Interview in *Berria* newspaper on the bilingual brain (here, in Basque).
- 2023: Interview in ARGIA magazine on the bilingual brain (here, in Basque).
- 2020: 'Bilingual individuals' interview in El Pais newspaper (available <u>here</u>, in Spanish)
- 2020: 'Genius of a thousand languages' interview in Deia newspaper (available here, in Spanish)
- 2020: Interview on Multilingualism and being a Forbes Scientist, on EITB radio (available here, in Basque)
- 2020: 'How does one become a Forbes Scientist?' interview on ONDA CERO radio; here in Spanish)
- 2019: Coverage and Interview in the *Inspire* series by Euronews (available <u>here</u> in English)
- 2018: *'When we sign, we build phrases with similar neural mechanisms as when we speak'* (American Association for the Advancement of Science, available <u>here</u> in English)
- 2018: *'Uno stesso circuito per lingua parlata e lingua dei segni'*, Le Scienze magazine, available <u>here</u>, in Italian)
- 2018: 'Four amazing discoveries you probably didn't hear about this week', NSF podcast, here, in English)
- 2018: 'How we turn on and off languages', Science Daily (available here, in English)
- 2017: 'Chatting makes it easy to switch languages', Futurity news (available here, in English)
- 2017: 'Is changing languages effortful for bilingual speakers?', Science Daily (available here, in English)
- 2016: 'Bilinguals are smarter than you think', Khaleej Times (available here, in English).

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).

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

LANGUAGES

Basque/Spanish: Native speaker. English: Near native. German: Conversational.