Esti Blanco-Elorrieta

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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.

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

AWARDS AND SCHOLARSHIPS

2025:   Early Career Award: Society for the Neurobiology of Language
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).

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

GRANTS

2025 – 2028 **Neural bases of bilingual language production (PI $607,772)**
Funding Agency: NSF BCS (grant 2446452)

2024 – 2025 **Influence of multilingualism on brain plasticity and development (PI $27,140)**
Funding Agency: NYU (type: Mega-grants initiative award)

2022 – 2027 **Language-specific and language-general mechanisms in bilingual aphasic individuals (PI $1,003,338)**
Funding Agency: NIH/NIDCD (type: K99/R00, 1K99DC019973-01)

2022 – 2025 **ATOM (Adaptations to Multilingualism) (Advisory team 68.365,00 €).**
Funding Agency: Ministry of Science (type: PID2021-124399NA-I00).

TRAINEE GRANTS

2025 – 2028 **Fellowship Award (Sponsor $144,500; PI Maya Taliaferro)**
Funding Agency: National Defense Science and Engineering Graduate Fellowship (NDSEG)

JOURNAL PUBLICATIONS

27. Chen, X., Salvadore, M., & **Blanco-Elorrieta, E. (***under review***).** A large sample investigation across 4 language groups reveals no consistent bilingualism specific neural adaptations.

26. Chen, X., & **Blanco-Elorrieta, E. (***under review***).** A theoretically driven, publicly available, calculation for language dominance and multilingualism score.

25. Chen, X., Marte, M., Kiran, S., & **Blanco-Elorrieta, E. (***under review***).** Evidence for an integrated bilingual language system across levels of representation through discourse tasks in bilingual aphasia.

24. **Blanco-Elorrieta, E.** & Arantzeta, M. (*2025*). Basque-Spanish bilingual aphasia: a case-study to inform bilingual language organization. *Neurobiology of Language,* 1 - 35.

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.

PEER-REVIEWED PROCEEDING PAPERS

2. Singh, A.*, Taliaferro, M.*, & **Blanco-Elorrieta, E.** (2025). Blending Boundaries: A Computational Approach to How Bilinguals Reconcile Cross-Linguistic Categorization. *Proceedings of the 46th Annual Meeting of the Cognitive Science Society. (CogSci)*

1. Taliaferro, M.*, Imel, N.*, Zaslavsky, N^., & **Blanco-Elorrieta, E^.** (2025). Bilinguals exhibit semantic convergence while maintaining near-optimal efficiency. *Proceedings of the 46th Annual Meeting of the Cognitive Science Society. (CogSci)*

INVITED TALKS   [last 5 years]

41. *Colloquium Speaker*. Cognitive and Brain Science Lecture Series*,* Tufts University, USA (2025, November).

40. *Early Career Award Speaker.* Society for the Neurobiology of Language (SNL), USA (2025, September).

39. *Keynote Speaker*. 2nd Conference in Clinical Linguistics, Baiona, France. (2025, July).

38. *Invited Speaker*. LOT Summer School on Linguistics, Antwerp, Belgium. (2025, June).

37. *Keynote Speaker*. LGBTQ+ Science Research Showcase, UCL, London, UK. (2025, June).

36. *Invited Speaker*. Waseda University Psycholinguistics Workshop, Tokyo, Japan. (2025, April).

35. *Keynote Speaker*. 5th International Conference on Theoretical East Asian Psycholinguistics, Tokyo, Japan. (2025, April).

34. *Colloquium Speaker. Concepts and Categories Colloquium*, New York University, USA (2025, March).

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 here).

22. *Keynote Speaker, Perspectives on Multilingualism: An Interdisciplinary Roundtable.* NYUAD Research Institute, New York, USA. (2023, January; available here).

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):

Spring 2024:   Undergraduate Cognition
Fall 2024:   Undergraduate Cognition
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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 (Dartmouth).
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

2025 – 2028   Elected Treasurer, Society for the Neurobiology of Language
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 (Psychology, NYU)
2023-present   Jessica Chen, Maya Taliaferro (Psychology, NYU)

Undergraduate thesis:
2025   Anushree Anandani (Psychology, NYU)
2022-2023   Alisa Ragassa (Psychology, Harvard)

Dissertation committee:
2024   Natália Pinheiro (Linguistics, Federal University of Santa Catarina in Brazil)
                    Alline-Priscillia Messi (Psychology, NYU)

NYU qualifying paper committee:

                Jessica Goebbel (Linguistics, NYU)

                Auromita Mitra (Linguistics, NYU)

Advisory committee:

                Hanxiao Lu (Psychology, NYU)

                Meghan Kalvey (Psychology, NYU)

SERVICE

a) Departmental service:

    Center for Brain Imaging Protocol Review Committee

    DEI Committee

b) 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.

c) 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.

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

e) Conference organization:

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

f) 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 (here, 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 here 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 (here, in Spanish).
2022:   TV Interview on the effects on multilingualism on the brain in EITB (available here, 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 here, in Spanish).
2021:   Interview in Archiletras bi-monthly scientific magazine (available here, in Spanish).
2021:   Baipasa: weekly contribution to science radio program (available here, 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

2025:   Keynote Speaker at UCL: LGBTQ+ Research Showcase.
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 (here, 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 here, 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 here 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 here in English)

2018:   *‘Uno stesso circuito per lingua parlata e lingua dei segni’*, Le Scienze magazine, available here, 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)

LANGUAGES

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