Chuck Bradley, Ph.D.

Quantitative & qualitative researcher fluent in multiple research modalities

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Experienced researcher with a focus on quantitative and qualitative methods in the social sciences, language, and branding. PhD in Linguistics from Purdue University, focusing on applying machine learning methods to large linguistic datasets. Experienced in all stages of data analysis pipeline, from identifying questions; designing experiments; collecting, cleaning, transforming, and warehousing data; scripting statistical analyses; and tailoring results for academic, business, and general audiences. Demonstrated project management and interpersonal skills with over 7 years experience of managing small teams of researchers. Conscientious, respectful of diversity, and eager to collaborate.

Key competencies

Consumer research | Naming research | Survey design and programming (Qualtrics, MTurk) | In-depth interviews | Data collection | Field methods | Experimental design | Statistical Analysis | Database queries (Pandas/Python, SQL) | Data visualization and reporting | Machine learning | Critical thinking | Creativity / Creative development | Presentation Skills (business, academic, and general audiences) | Project management | Teamwork | Linguistics | Non-verbal communication / Sign language studies

Professional experience

Linguistic researcher | Lexicon Branding | Sausalito, CA

Boutique brand naming and market research firm; Creators of Sonos, Blackberry, Swiffer and Pentium.

September 2021 - present

- Served as lead or integral researcher on 25+ client engagements, contributing to \$840k+ in revenue (in FY2022 alone). Clients include: EY, Meta, Fannie Mae, Intel, PepsiCo, Intuit QuickBooks, and John Middleton Co
- Led linguistic and cultural analysis of more than 2,800 brand names across 75+ creative projects (as of Nov. 2022) to give clients confidence that their brand assets sing globally and are free of any potential linguistic or cultural misgivings
- Designed Python-based analysis routines for streamlined data processing, visualization and reporting, reducing research turnaround by roughly 32 hours; Created automatic poor participant scrubber, saving \$25k+ in wasteful bot/poor participant payment in first 6 months of use
- Coordinate with clients to develop and pressure test brand names and brand architectures; Align creative copy writing strategies to communicate brand positioning more efficiently
- **Highlight:** *EY, 2021*: Led the design, deployment and analysis of quantitative research in US, Germany, Japan, and Saudi Arabia to evaluate name candidates for new financial branch. Did the same for qualitative analysis of name candidates in 68 geographically diverse languages (from Gulf Arabic to Papiamento, a creole language spoken in the Dutch Caribbean)

Independent Researcher | Philadelphia, PA & San Francisco, CA

May 2019 - present

- Present new-to-the-world original research at international conferences, applying techniques from computer science to the study of human communication through movement/vision
- Prepared 1st author articles for publication with collaborators from leading universities; Lead experiment planning, fielding, analysis and visualization; see §Select Scholarly Output (pg. 2)
- Maintain up-to-date methodological skills, e.g. machine learning techniques
- Principal writer of three \$200k+ international grants in collaboration with University of Oslo and University of Edinburgh

Manager, Sign Language & Linguistics Lab | Purdue University, West Lafayette, IN

Aug 2013 - May 2018

- Designed data collection and annotation schemes for use in machine learning pipelines; Responsible for data integrity and storage
- Trained and supervised teams of up to 10 student researchers per semester; 20+ students over entire appointment
- · Worked closely with director in student recruitment, evaluation, retention
- Mentored student researchers one-on-one in developing research projects for end-of-semester department projects and Purdue student research fair

Instructor | Purdue University, West Lafayette, IN

May 2015 - May 2018

- Planned and developed two undergraduate courses from scratch (5 semesters total): Created all learning objectives, assessments, syllabuses, and lectures
- Pulled linguistic examples from diverse language set, prioritizing minority languages spoken by students; Tailored assignments to students' diverse interests (speech & hearing, computational linguistics, foreign language instruction, etc.)

Fducation

Ph.D. in Linguistics | Purdue University, West Lafayette, IN

Aug 2013 - May 2019

Dissertation: Transparency of transitivity in gesture, sign language

- Outcome: Demonstrated that syntactic and conceptual structure are visually linked in American Sign Language and gestures from non-signers, shedding light on a crucial stepping stone between gesture and (sign) language
- · Methods: structured elicitation, corpus analysis, and online perception studies via MTurk
- · Analyses: Machine-learning analysis (Naive Bayes & SVM), coded 100% in Python

M.A. in Linguistics | Purdue University, West Lafayette, IN

Aug 2010 - May 2013

Thesis: Motion events and event segmentation in American Sign Language

- Outcome: Demonstrated that the form of some ASL verbs can be predicted by how the world is physically shaped and how it is schematized. Drew critical comparisons between ASL verbs and map-drawing
- Methods: Semantic fieldwork/in-depth interviews in ASL
- · Analyses: Formal syntactic and semantic treatment

B.A., Independent Scholar (Linguistics) | Middlebury College, Middlebury, VT

Sep 2005 - Jun 2009

Thesis: A theoretical look at the person agreement marker in German Sign Lang..

- Outcome: Demonstrated that sign languages pose problems for linguistic theories created around spoken languages via the abnormal behavior of an agreement marker in German Sign Language. Suggested that rich visual imagery interacts tightly with more rigid linguistic system
- Methods/Analysis: Detailed literature review with original syntactic analysis

Technical skills, Languages

Natural languages: English (native), ASL (beginner) | Artificial languages: Python, SQL, MATLAB | Statistics: Chi2, ANOVA, Linear and logistic regression, A/B testing | Machine learning: Data preprocessing, Naïve Bayes, SVM/SVC, Bag-of-words, Clustering, PCA | Natural Language Processing: SpaCy, GLoVE, Word2Vec, NLTK | Git / Github | Microsoft Office Suite: Word, Excel, Powerpoint, Outlook | Google Suite: Drive, Docs, Sheets, Slides, Forms, Calendar | Other: fMRI (licensed operator, biomedical signal processing), Accessibility studies (deaf/hard-of-hearing)

Select scholarly output

- **Bradley, C.**, Malaia, E., Siskind, J. M. and R. B. Wilbur. (2022) Visual form of ASL verb signs predicts non-signer judgment of transitivity.PLOS ONE 17(2): e0262098. (article)
- **Bradley, C.**, Wilbur, R. (accepted). Visual form and event semantics predict transitivity in silent gestures: Evidence for compositionality. Submitted to *Cognitive Science*. (manuscript). (project on GitHub)
- Karabüklü, S., Wood, S. Sandra, **Bradley, C.**, Wilbur, R. B., and E. A. Malaia (*in prep.*). Sign language learning increases temporal resolution of visual attention. (manuscript)
- **Bradley, C.** (2022). Compositionality in 'Holistic' Pantomime Characterizes a Gesture-First Proto-Language. Talk presented at *Expression, Language, Music 1* (August 20–22, 2022)
- **Bradley, C.** (2021). Top-down and bottom-up sources of meaning in silent gesture. Talk presented at *AMLaP2021* (September 2–4, 2021) (abstract) (presentation)
- **Bradley, C.** (2021). Systematicity in gesture production, perception may support sign language emergence. Poster presented at the *CUNY Conference on Human Sentence Processing 34*. Philadelphia, PA, US. (abstract) (presentation)
- **Bradley, C.** (2019). Transparency of transitivity in pantomime, sign language. (Doctoral dissertation). Purdue University West Lafayette, IN. (dissertation)