

Highlight

- **Skilled Researcher:** 3+ years of quantitative research using Psychology and Neuroscience expertise to study mechanisms of human language comprehension.
- **Skilled Data Scientist:** 4+ years of statistical modelling of large human datasets using Python and R.
- **Communicator:** 3+ years transforming data and insights into non-technical presentations, scientific journal articles, and conference papers.
- **Leader & Educator:** 10+ research supervision, 8+ years of teaching, transforming complex theoretical concepts into comprehensive presentations for students and research team members.

Education

2022 – 2025	PhD Linguistics (Psycholinguistics), University College London	
2018 – 2019	MSc Language Sciences , University College London	awarded Distinction
2014 – 2018	BA French Language and Literature, Beijing Foreign Studies University	GPA 3.89

Work

- 2022 – Present | PhD Researcher**, University College London

Interdisciplinary: Integrated Psychology, Neuroscience, and Linguistics to investigate prediction in human language comprehension.

Experimentation: Designed and conducted *behavioural, eye-tracking, and EEG experiments* to address research questions.

Data Analysis: Analysed large human datasets in *Python and R*, using a variety of statistical models, from correlations to mixed-effects linear and logistic regressions, Monte-Carlo simulations, and Bayesian modelling. Proficient in model selection and using statistic models to *predict future results*.

Scientific Communication: Transformed results into journal articles and conference papers. Results are presented in 10+ international academic conferences.

Leadership and Teamwork: Co-supervised 10+ undergraduate and postgraduate students, guiding them in research design, data collection, analysis, and thesis writing.
- 2022 – Present | Post-Graduate Teaching Assistant**, University College London

Teaching & Student Support: Transformed complex theoretical concepts into comprehensive presentations. Designed and facilitated in-class activities, resulting in approx. **30% of first-class honours** students in the classes.

Interdisciplinary: Taught more than 5 courses in Neurolinguistics, Psycholinguistics, Research Methods, and Statistics.

Assessment & Feedback: Marked student assignments and essays, providing constructive feedback to support academic growth.
- 2021 – Present | Research Mentor** (Freelance), Beijing Yuzhiyue Education Consulting Co., Ltd.

Training Development & Delivery: Designed tailored training plans and provided one-on-one training in research design, data analysis, and academic writing. Over 50% returning clients due to proven success in driving their academic growth.

Multidisciplinary Expertise: Student clients from diverse fields, including psychology, sociology, geography, and sociolinguistics, ensuring adaptability of support to their specific research objectives.
- 2019 – 2020 | Research Assistant**, Department of Psychology and Cognitive Neurosciences, East China Normal University

Research Design & Management: Collaborated closely with the Principal Investigator and lab members to design experiments, collect data (eye-tracking, fMRI), and conduct data analysis (eye movements in

reading), to investigate the connection between reading ability and developmental changes in brain anatomy.

Documentation & Reporting: Drafted academic reports and ethics applications.

Fund Management: Managed the lab's research funds, monitoring research fund usage.

Lab Community Engagement: Organized social events for lab members.

2015 – 2021 | Private Teacher/Tutor, Freelance

Teaching & Communication: Designed and delivered tailored training programmes in English as a Second Language (ESL), French as a Second Language (FLE), ranging from primary school to adult levels.

Languages

Mandarin Chinese (native language)

French (DALF C1)

English (IELTS 8.5, L9 R9 W7.5 S8)

Japanese (JLPT N1)

Event Projects

2024 – 2025 | UCL Linguistics Short Courses 24/25 (principle organizer)

Curriculum Coordination: Managed a team of over 10 course instructors, worked with them to plan and refine course content, ensuring high-quality curriculum alignment with program goals.

Website Management: Developed and maintained the course website.

Enrolment & Promotion: Managed student enrolment processes, developed promotional strategies, and engaged in outreach to increase course visibility.

Scheduling & Logistics: Coordinated course schedules and locations, ensuring smooth operation.

Teaching: Delivered the module The Eye-tracking Method and its Application in Language Research.

2023 – 2024 | UCL Linguistics Autumn School 2023 (co-organizer)

Website Management: Developed and maintained the course website.

Promotion & Outreach: Implemented promotional strategies to increase course visibility and participant engagement, including giving presentations of the course outline in front of student audiences.

Scheduling Support: Assisted the lead organizer in coordinating course schedules.

Student Communication: Managed communications and ensured timely updates via email.

Teaching: Delivered the module Introduction to the Eye-tracking Method and its Application in Language Research.

Research Projects

The role of phonology in human language prediction

Human comprehenders make predictions about upcoming languages on the fly. For example, when someone says “*Let’s go to Starbucks to get some...*”, most people will start thinking about “*coffee*” even before the word is said. This research investigates whether informative phonological cues can feed into such predictions.

- Designed and conducted four eye-tracking experiments where participants view visual scenes while listening to spoken language. Anticipatory visual attention is measured to index prediction.
- Four behavioural experiments where participants respond to auditory stimuli, to test their perception of phonological cues in their language (e.g. “a” vs. “an”).
- Results suggest that although human comprehenders have robust knowledge about the language’s phonology, this information doesn’t seem to feed into real-time language prediction.
- Evidence for a *lexico-semantics-centred language processing model*, challenging current models where all informative cues contribute equally to prediction.
- Selection of publications and conference presentations:
 - **Huo, Y.** & Chow, W.Y. (in submission) Listeners do not routinely use Mandarin Chinese tone sandhi to predict upcoming words: an eye-tracking study.

- **Huo, Y.** (2023) *Limited involvement of Mandarin Chinese tone sandhi in prediction during language comprehension*. Talk at the Symposium: Tone and prediction in language. 17 Nov. 2023, Lund University, Lund, Sweden.
- **Huo, Y., & Chow, W.Y.** (2024) *Gap between comprehenders' linguistic knowledge and their ability to make predictions: evidence from Mandarin Chinese tone sandhi*. Poster presented at LingO 2024: Oxford Postgraduate Conference in Linguistics, Jesus College, Oxford, UK.

Strategic control in human language prediction

Language prediction can often turn out to be wrong (“*Let’s go to Starbucks to get some...brunch*”). This project investigates under what conditions comprehenders may stop generating predictions.

- Two eye-tracking experiments where participants are put under a high demand of response speed and accuracy while following often-unexpected spoken instructions to interact with a visual scene.
- Results suggest that listeners do not abandon a predictive cue unless they have more reliable one to use.
- Evidence for a *central role of prediction in language processing*, although comprehenders can *modify the weighting of different cues*.
- Selection of conference presentations:
 - **Huo, Y., Lan, X., Yuan, X., & Chow, W.Y.** (2024) *Prediction during language comprehension may be under strategic control: evidence from eye movements*. Poster presented at AMLaP 2024 - Architectures and Mechanisms of Language Processing 2024, University of Edinburgh, Edinburgh, UK.
 - **Huo, Y., Wang, S., & Chow, W.Y.** (2023) *Task modulates predictive behaviour in constraining context: Eye-tracking evidence from a prediction error study*. Poster presented at LingCologne2023: Prediction in Language, University of Cologne, Cologne, Germany.