

Curriculum Vitae

Zed Sevcikova Sehyr, PhD

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Research summary

I earned my PhD in Cognitive, Perceptual and Brain Sciences in 2013 from University College London (UCL), United Kingdom. My doctoral research examined effects of sign language experience and deafness on perception of handshapes in British Sign Language and gesture. The study of sign language as a window into the human mind lies at the heart of my work. My research aims to understand what aspects of language are common to all languages (e.g., frequency, phonological structuring) and what aspects pertain a specific language modality (e.g., iconicity). I am also interested how augmented sensory experiences (congenital deafness) impact aspects of visual perception, cognition and language processing (signed, spoken and written). I am a co-investigator on an NSF funded, award-winning project, ASL-LEX (asl-lex.org). This first of a kind, large-scale lexical database for American Sign Language maps out the lexico-semantic properties of the ASL lexicon and offers an invaluable resource for educators, students, and scientists interested in exploring questions concerning lexicons, language acquisition, machine learning or computer vision. My research combines psycholinguistic, electrophysiological and motion-tracking methodologies to advance our understanding of language and the brain's plasticity following unique perceptual, linguistic and developmental circumstances.

Current position

July 2015-present: Research Scientist, Laboratory for Language and Cognitive Neuroscience, San Diego State University, San Diego, California, USA

Academic employment history

- 2013-15 Postdoctoral Research Scholar, Laboratory for Language and Cognitive Neuroscience, San Diego State University, California, USA
- 2011-13 Lecturer in English Language & Communication, Kingston University, Surrey, UK
- 2010-11 Research Assistant, Deafness Cognition & Language Research Centre, University College London, UK
- 2010-11 Sessional Lecturer, Research Methods in Psychology; Introduction to Psychological Experiments; Academic English, Birkbeck College, University of London, UK
- 2009-10 Teaching Assistant, Sign Language Linguistics; Psychology and Language Science, University College London, UK
- 2009 Visiting Lecturer in Sign Language and Linguistics; University of Roehampton, UK
- 2009 Visiting Lecturer, English for Speakers of Other Languages; West London College, UK
- 2009 Assistant Editor, Deaf Worlds, Academic Journal of Deaf Studies, Forest Books, UK

Academic degrees

- 2013 PhD in Cognitive, Perceptual & Brain Sciences, Psychology and Language Sciences, Deafness, Cognition and Language Research Centre, University College London, UK
- 2007 Master's Degree in Applied Linguistics (distinction), Birkbeck College; London, UK
- 2005 Bachelor's Degree (1st Class Honors) in English Language & Linguistics; Kingston University, UK

Grants and awards

- 2019 NSF Directorate for Social Behavioral & Economic Sciences – Quantifying systematicity, iconicity, and arbitrariness in the American Sign Language lexicon, Co-Investigator (\$552,162)
- 2018 Society for the Neurobiology of Language Travel Award (National Institutes of Health, NIH) to present at the SNL 10th Annual Meeting in Quebec City, Canada (\$500)
- 2017 The NSF & Popular Science, The 15th Anniversary Vizzies People's Choice Award for ASL-LEX: A Visualization of American Sign Language, Interactive category.
- 2016 Early Career Researcher Award. Awarded by Sign Language Linguistics Society at the 12th Conference on Theoretical Issues in Sign Language Research (TISLR), Melbourne.
- 2010 Best Student Paper Award, 2nd place. Awarded by the International Society for Gesture Studies (ISGS) at the Gesture – Evolution, Brain & Linguistic Structures conference, European University of Viadrina, Frankfurt (Oder), Germany, Jul 25-30, 2010.
- 2010 UCL Graduate School conference grant (£235)
- 2010 Arts & Humanities Research Council (AHRC) Conference Travel Grant (£170)
- 2008 UCL Graduate School major research skills training fund (GBP450)
- 2007 Arts & Humanities Research Council (AHRC) Doctoral Studentship Award (£14,050), Award no. 2006/136414, PI Kearsy Cormier
- 2005 English Language Prize for Outstanding Academic Achievement. Kingston University

Synergistic activities and professional experience

- 2018-pres. Co-organizer at Nerd Nite San Diego, monthly informal lecture series on science and technology aimed at general public. <https://sandiego.nerdnite.com/>
- 2018-pres. Mentor Scientist at the annual EcoLogik Women in STEM Fair, Cabrillo National Monument, San Diego, California, USA. <http://cabrilloeducation.com/ecologik/>
- 2012-pres. Ad-hoc tutor and academic advisor to undergraduate / graduate students, PhD Tutors, UK
- 2012 Linguistic consultant for Prometheus (Dir. Ridley Scott, Twentieth Century Fox) <https://www.imdb.com/name/nm5082572/>
- 2010 Language Expert, linguistic consultancy, Silver River Productions, London, UK
- 2009 Assistant Editor, Deaf Worlds: Academic Journal of Deaf Studies, Forest Books, UK
- 2007 Subtitling Production Assistant, Access Services, Red Bee Media (BBC), London, UK

Representative list of peer-reviewed articles to date:

2019

- International Journal of Bilingualism: Bimodal bilingualism and executive functions: any influence on attentional control, psychomotor and perceptive speed or task switching?

- Journal of Deaf Studies and Deaf Education: Influence of Visual and Linguistic Experience on Sign Perception
- Journal of Psycholinguistic Research: Are French Fries a Vegetable? Lexical Typicality Judgement Differences in Deaf and Hearing Learners

2017

- Bilingualism: Language and Cognition: The functional organization of sign language in hearing interpreters: Effects of Age of Acquisition and interpreting training
- Annual Meeting of the Linguistic Society of America, Pittsburgh – Conference abstracts review
- Neuropsychologia: Early use of phonological codes in deaf readers: An ERP study
- Applied Psycholinguistics: Iconicity in American Sign Language-English Translation Recognition
- Journal of Deaf Studies and Deaf Education: Operationalization of Sign Language Phonological Similarity and its Effects on Lexical Access

2016

- Brain and Language: Examining the contribution of motor movement and language dominance to increased left lateralization during sign generation in native signers

List of courses taught to date

Undergraduate:

ELA020X244S Linguistics of Sign Languages (University of Roehampton)
 EN1138 Analysing English (Kingston University)
 EN1228 Language in Context I and II (Kingston University)
 EN1188 Systems of Language (Kingston University)
 EN2218 Global English (Kingston University)
 EN3198 Language and Gender (Kingston University)
 EN3388 Language and the Media (Kingston University)
 EN3348 Professional Skills for Linguists (Kingston University)
 EN3208 Stylistics (Kingston University)
 FFAE002H4 Academic English (Birkbeck, University of London)
 Research Methods (Birkbeck, University of London)

Graduate:

ENM405 The Social & Cultural Contexts of English Language Teaching (MA; Kingston University)

Certifications

2014	American Sign Language Level Two, Interpret San Diego, San Diego, USA
2008	Signature British Sign Language Level Two, London, UK
2001	Cambridge Certificate in English Language Teaching to Adults (CELTA), London, UK

Publications

- Sevcikova Sehyr, Z., Midgley, K. J., Holcomb, P. J., Emmorey, K., Plaut, D. C., & Behrmann, M. (2020). Unique N170 signatures to words and faces in deaf ASL signers reflect experience-specific adaptations during early visual processing. *Neuropsychologia*, 141, 107414. doi.org/10.1016/j.neuropsychologia.2020.107414
- Sevcikova Sehyr, Z. and Emmorey, K. (2019). The perceived mapping between form and meaning in American Sign Language depends on linguistic knowledge and task: Evidence from iconicity and transparency judgments. *Language and Cognition*, 1-27. Published online July 12, 2019. doi.org/10.1017/langcog.2019.18
- Sehyr Sevcikova Z., Giezen, M. R., & Emmorey, K. (2018). Comparing semantic fluency in American Sign Language and English. *Journal of Deaf Studies & Deaf Education* 23 (4). doi.org/10.1093/deafed/eny013
- Sehyr Sevcikova Z. and Emmorey, K. (2018). Referring strategies in American Sign Language and English (with co-speech gesture): The role of modality in referring to non-nameable objects. *Applied Psycholinguistics* (39)5. 961-987. doi.org/10.1017/S0142716418000061
- Sehyr Sevcikova Z., Petrich, J., & Emmorey, K. (2016). Fingerspelled and printed words are recoded into a speech-based code for short-term memory. *Journal of Deaf Studies and Deaf Education*, 22(1), 72-87. doi.org/10.1093/deafed/enw068
- Sehyr Sevcikova Z. & Cormier, K. (2015). Perceptual categorization of handling handshapes in British Sign Language. *Language and Cognition*, 8(4). 501-532. doi.org/10.1017/langcog.2015.4
- Sevcikova, Z. (2013) Categorical versus gradient properties of handling handshapes in British Sign Language (BSL). *Doctoral dissertation*, University College London.

In preparation

- Sehyr Sevcikova, Z., Midgley, K.J., Holcomb, P.J., & Emmorey, K. (in prep.). Priming effects between fingerspelled fonts and printed letters.
- Sehyr Sevcikova, Z., & Emmorey, K. (in prep.). Lexical factors that influence sign retrieval: A large-scale ASL picture-naming study.
- Sehyr Sevcikova, Z., Edinger, R. & Emmorey, K. (in prep.). Quantifying the spatial and temporal properties of nouns and verbs in American Sign Language using Microsoft Kinect.
- Sehyr Sevcikova, Z., & Emmorey, K. (in prep.). Assessing the contribution of lexical quality variables to reading comprehension in deaf and hearing readers.
- Sehyr Sevcikova, Z., Caselli, N., Cohen-Goldberg, A., & Emmorey, K. (in prep.) ASL-LEX: A lexical database of American Sign Language for 2723 ASL signs: An update.

Publications: co-authored

- Schaller, F., Lee, B., **Sehyr Sevcikova, Z.**, O'Grady Farnady, C., & Emmorey, K. (in press). Cross-linguistic metaphor priming in ASL-English bilinguals: Effects of the Double Mapping Constraint. Special Issue of *Sign Language & Linguistics*.
- Thompson, B., Perlman, M., Lupyan, G., **Sevcikova Sehyr, Z.**, & Emmorey, K. (2020). A Data-driven approach to the semantics of iconicity in American Sign Language and English. *Language & Cognition* 12 (1): 182-202. doi.org/10.1017/langcog.2019.52

- Weisberg, J. Casey, S., **Sehyr Sevcikova Z.**, & Emmorey, K. (2019) Second language acquisition of American Sign Language influences co-speech gesture production. *Bilingualism: Language and Cognition* 1-10. doi.org/10.1017/S1366728919000208
- Emmorey, K., Midgley, K., Cohen, K., **Sehyr Sevcikova Z.** & Holcomb, P. (2017) The N170 ERP component differs in laterality, distribution, and association with continuous reading measures for deaf and hearing readers. *Neuropsychologia*, 106, 298–309. 10.1016/j.neuropsychologia.2017.10.001
- Meade, G., Midgley, K., **Sehyr Sevcikova Z.**, Holcomb, P., & Emmorey, K. (2017) Implicit co-activation of American Sign Language in deaf readers: An ERP study. *Brain and Language* 170, 50-61.
- Keane, J., **Sehyr Sevcikova Z.**, Emmorey, K., and Brentari, D. (2017) A Theory-Driven Model of Handshape Similarity. *Phonology*, 34: Thematic issue: Computational phonology.
- Caselli, N., Sehyr, **Sehyr Sevcikova, Z.**, Cohen-Goldberg, A., & Emmorey, K. (2017). ASL-LEX: A lexical database of American Sign Language. *Behavior Research Methods* 49(2). 784-801. doi.org/10.3758/s1342 [ASL-LEX.org]
- Cormier, K., Smith, S., & **Sehyr Sevcikova Z.** (2015). Rethinking Constructed Action, *Sign Language & Linguistics*, 18:2, pp. 167-204. DOI: [10.1075/sll.18.2.01cor](https://doi.org/10.1075/sll.18.2.01cor)
- Cormier, K., S. Smith & **Sevcikova, Z.** (2013) Predicate structures, gesture and simultaneity in the representation of action in British Sign Language: Evidence from deaf children and adults. *Journal of Deaf Studies and Deaf Education*, 18 (3), 370-390.
- Cormier, K., Quinto-Pozos, D., **Sevcikova, Z.**, & Schembri, A. (2012). Lexicalisation and de-lexicalisation processes in sign languages: Comparing depicting constructions and viewpoint gestures. *Language and Communication*, 32 (4), pp. 329–348

Conference Presentations

- Sehyr Sevcikova, Z., & Emmorey, K. (2019). *Lexical factors that influence sign retrieval: A large-scale ASL picture-naming study*. Poster presented at the 13th Conference in Theoretical Issues in Sign Language Research (TISLR13), Hamburg, Germany, 26-28 Sep, 2019.
- Sehyr Sevcikova, Z., Edinger, R. & Emmorey, K. (2019). *Quantifying the spatial and temporal properties of nouns and verbs in American Sign Language using Microsoft Kinect*. Poster presented at the 13th Conference in Theoretical Issues in Sign Language Research (TISLR13), Hamburg, Germany, 26-28 Sep, 2019.
- Sehyr Sevcikova, Z., & Emmorey, K. (2018). *Assessing the contribution of lexical quality variables to reading comprehension in deaf and hearing readers*. Paper presented at the 59th Annual Meeting of the Psychonomic Society, Nov 15-18, New Orleans, Louisiana, USA.
- Sehyr Sevcikova, Z., Renna, J., Osmond, S., Midgley, K.J., Holcomb, P.J., & Emmorey, K. (2018). *Priming effects between fingerspelled fonts and printed letters*. Poster presented at The Tenth Annual Meeting of the Society for the Neurobiology of Language, Québec City, Canada, Aug 16–18, 2018. ***awarded NIH / SNL Travel Award**
- Sehyr Sevcikova Z., Fisher, D., & Emmorey, K. (2017) *The influence of sign language experience on iconicity judgments*. Psychonomic Society's 58th Annual Meeting, Vancouver, BC.
- Cormier, K. and Sehyr Sevcikova Z. (2017) *Viewpoint constructions in British Sign Language, co-speech gesture and silent gesture*. Paper presented at the 91st Annual Meeting of the Linguistic Society of America, January 5-8, Austin, TX
- Sehyr Sevcikova Z., Emmorey, K., Midgley, K., & Holcomb, P. (2016) *Hemispheric lateralization of early ERP components in deaf and hearing readers with low and high vocabulary size*.

- Poster presented at the 8th Annual Meeting for the Neurobiology of Language, London, England, UK, Aug 17-20.
- Sehyr Sevcikova Z., Emmorey, K., Midgley, K., & Holcomb, P. (2016) *Lateralization of the N170 for word and face processing in deaf signers*. Poster presented at the Cognitive Neuroscience Society Annual Meeting, New York, April 2-5.
- Sehyr Sevcikova Z. and Emmorey, K. (2016) *Representation of print and fingerspelling in short-term memory*. Paper presented at The 12th Conference on Theoretical Issues in Sign Language Research (TISLR), Melbourne, Jan 4-7.
- Sehyr Sevcikova Z., Caselli, N., Cohen-Goldberg, A., & Emmorey, K. (2016). *ASL-LEX: A lexical database of American Sign Language*. Poster presented at The 12th Conference on Theoretical Issues in Sign Language Research (TISLR), Melbourne, Jan 4-7 ***awarded Early Career Award by the Sign Language Linguistics Society***
- Sehyr Sevcikova Z. and Emmorey, K. (2014) *Representation of print and fingerspelling in short-term memory*. Poster presented at Psychonomic Society's 55th Annual Meeting, Long Beach, California, USA, Nov 20-23.
- Sehyr Sevcikova Z. & Emmorey, K. (2014) *The role of co-speech gesture in description of non-nameable shapes*. Paper presented at The 6th Conference of the International Society for Gesture Studies, University of California, San Diego, July 8-11.
- Sevcikova, Z. (2013) *Are handling constructions in BSL conventional? Evidence from encoding of graspable object sizes in handling constructions*. Paper presented at the Theoretical Issues in Sign Language Research (TISLR11), London, July 11.
- Sevcikova, Z. (2012) *Structural complexities of handling handshapes in BSL: experimental evidence from deaf signers and hearing gesturers*. 34th DGfS Meeting, Language as a Complex System; Experimental Studies in Sign Language workshop, Frankfurt, Mar 7. ***awarded 2nd place in Best Student Paper Competition by the International Society for Gesture Studies***
- Sevcikova, Z. (2010) *Categorical perception & production of handling handshapes in BSL*. Paper presented at 4th UK Cognitive Linguistics Conference, U. of Hertfordshire.
- Sevcikova, Z. (2010) *Categorical vs. Gradient Properties of Handling Signs in BSL*. Poster presented at TISLR conference, Purdue University, West Lafayette, USA.

Invited Lectures & Plenaries

- Sevcikova Sehyr, Z. (2017). ASL-LEX: A Lexical database for American Sign Language. Paper presented at 2017 Linguistic Institute, Language Across Space and Time: Workshop on American Sign Language (ASL) Research Resources. LSA Summer Institute, University of Kentucky, Louisiana, July 2017.
- Sehyr, Sevcikova Z. (2016) *Hemispheric lateralization of early ERP components in deaf and hearing individuals*. Department of Linguistics Seminar Series, UBC, Vancouver, Canada, 18th May, 2016 <http://linguistics.ubc.ca/events/event/zed-sehyrs-research-seminar/>
- Sehyr, Sevcikova Z. (2016) *Is the lateralization of early visual encoding of words and faces affected by sign language expertise and deafness?* VL2 Student Network webinar, 4th Nov 2016.
- Sevcikova, Sehyr, Z. (2012) *Report on DCAL research activities and postgraduate study at UCL*. Department of Deaf Studies, Faculty of Philosophy, Charles University Prague, 13th Apr 2012. <http://ujkn.ff.cuni.cz/?q=en/node/652>
- Sevcikova, Z. (2010) *Categorical perception and production of handling handshapes in BSL: evidence from BSL signing and hearing gesture*. Plenary lecture presented at "Gesture –

Evolution, Brain and Linguistic Structures” international conference, ISGS, European University of Viadrina, Frankfurt (Oder), Germany, Jul 2010

Sevcikova, Z. (2011) *Handshapes in BSL and gesture*. Language and Cognition Speaker Series, University of Birmingham, UK, 19th May, 2011.

Sevcikova, Z. (2009) *Introduction to Sign Language Acquisition*, Kingston University, Kingston-upon-Thames, UK, 8th Dec 2009.

Sevcikova, Z. (2009) *Introduction to Deaf Community, Sign Language and Communication*. Kingston University, Kingston-upon-Thames, UK, 25th Nov 2009.

Sevcikova, Z. (2009) Subtitling: theory and practice. Professional Skills for Linguists module. Kingston University, Kingston-upon-Thames, UK, 23rd Mar 2009

Recent research project supervision

Edinger, R., Emmorey, K., Sehyr Sevcikova, Z. (2019). *Picture-naming project in ASL using the Microsoft Kinect*. Poster presented at TISLR13 in Hamburg, Germany.

Billot-Vasquez, K., & Sehyr Sevcikova, Z. (in prep). *Analyzing orthographic error patterns in English and ASL Fingerspelling*.

Trussell, M. (2019) *Assessing the contribution of reading experience to reading comprehension in deaf readers*. Poster presented at the Student Research Symposium, SDSU, Mar 2019.

Manriquez, A. (2019) *Examining the nature of spelling errors in deaf and hearing readers using an English spelling production and spelling recognition tasks*. Poster presented at the Student Research Symposium, SDSU, Mar 2019.

Conference organization

2011 CISLDC Postgraduate Conference on Current Issues in Sign Linguistics, Deafness and Cognition (CISLDC 2011); Organizing Committee, Scientific Committee. Awarded the LAGB Cross-institutional Conference Sponsorship £600

Professional societies membership

Psychonomics Society Fellow (FPsyS) since 2018

AAAS Member since 2016

ISGS: International Society for Gesture Studies Member since 2012

LAGB: Linguistic Association of Great Britain Member since 2011

LSA Linguistic Society of America Member since 2016

Psychonomic Society Member since 2014

SLLS: Sign Language Linguistics Society Member since 2010

Technological skills

Adobe Photoshop; Mac FinalCutPro, iMovie; Microsoft: Kinect Motion; MS Suite.

Statistical Software: SPSS, R Studio, Matlab

Experiment Design / Data Collection: EEGLAB/NeuroScan, PsyScope, Open Sesame, Survey
Monkey, Amazon MTurk, EyeLink

Database management: FileMakerAdvanced, EndNote

3D Animation: Poser™

Social Networking: Wordpress, YouTube, Vimeo, Twitter, Facebook, Hootsuite, Google+, Instagram

Languages: American Sign Language, British Sign Language, English, Czech

REFERENCES

Provided separately.