




# Šárka KADAVÁ


Doctoral Researcher & Methodological Developer

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 Leibniz-Centre General Linguistics (ZAS), Pariser Str. 1, 10719 Berlin

 Born on 23 February 1996 in Liberec, Czech Republic

 Research areas: Multimodal data capture & analysis, motion capture, communicative movement, communicative effort, open and reproducible research methods

## ACADEMIC PROFESSIONAL EXPERIENCE

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01.2025 ongoing	<b>Methodological developer, LEIBNIZ-CENTRE GENERAL LINGUISTICS, BERLIN, Germany</b> <ul style="list-style-type: none"><li>&gt; ANR-DFG Project: An Integrative-Interactive Approach to Speech Development (Voc2Speak) <a href="#">Project website</a></li></ul>
10.2022 ongoing	<b>Doctoral researcher, LEIBNIZ-CENTRE GENERAL LINGUISTICS, BERLIN, Germany</b> <ul style="list-style-type: none"><li>&gt; DFG Project: On the FLExibility and Stability of Gesture-Speech Coordination: Evidence from Multimodal Production, Comprehension, and Imitation (FLESH) <a href="#">Project website</a></li></ul>
09.2024	<b>Visiting Researcher, UNIVERSITY OF COLOGNE, Germany</b> <ul style="list-style-type: none"><li>&gt; Research collaboration with Door Spruijt (2 weeks)</li></ul>
04.2023 04.2024	<b>Visiting Researcher, DONDEERS CENTER FOR COGNITION, NIJMEGEN, The Netherlands</b>
04.2022 09.2022	<b>Research Assistant, INSTITUTE OF PSYCHOLOGY, THE CZECH ACADEMY OF SCIENCE, PRAGUE, Czech Republic</b> <ul style="list-style-type: none"><li>&gt; Project: Czech adaptation of MB-CDI – parent report instrument investigating early communication of children in age of 8–30 months (Dovyko) <a href="#">Project website</a></li></ul>

## EDUCATION

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2023 ongoing	<b>Doctor of Philosophy, UNIVERSITY OF GÖTTINGEN &amp; RADBOD UNIVERSITY, NIJMEGEN, Germany &amp; The Netherlands</b> <ul style="list-style-type: none"><li>&gt; Joint doctorate</li><li>&gt; Program: General Linguistics</li><li>&gt; Title: Emergence of Meaning in Gesture-Vocal Signalling</li><li>&gt; Expected submission date: September 2026</li><li>&gt; Supervisors: Prof. Markus Steinbach, Prof. Judith Holler, Dr. Aleksandra Ćwiek, Dr. Susanne Fuchs, Dr. Wim Pouw</li></ul>
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2018 2022	<b>Master of Arts, FACULTY OF ARTS, CHARLES UNIVERSITY, PRAGUE, Czech Republic</b> > Program: Czech Philology > Thesis: <a href="#">Event Representation in Pantomime versus Linguistic Expression</a> > Supervisor: Dr. Eva Lehečková
2018 2021	<b>Master of Arts, FACULTY OF SOCIAL STUDIES, CHARLES UNIVERSITY, PRAGUE, Czech Republic</b> > Program: Electronic Culture and Semiotics > Thesis: <a href="#">From Language to Sign: Three Stages of Cognitivism</a> > Supervisor: Dr. Martin Švantner
02.2021 07.2021	<b>Erasmus Mobility Program, UNIVERSITÀ DI BOLOGNA, Italy</b>
08.2020 01.2021	<b>Erasmus Mobility Program, LUND UNIVERSITY, Sweden</b>
2015 2018	<b>Bachelor of Arts, FACULTY OF ARTS, CHARLES UNIVERSITY, PRAGUE, Czech Republic</b> > Program: Czech Philology > Thesis: <a href="#">The Metaphors of Socialism within the Canonic Prose Fiction of the 1950s</a> > Supervisor: Prof. Petr Bílek

## FUNDING AND AWARDS

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- 2025 EnvisionBox shortlisted for the [Leo Waaijers Open Science Award 2025](#)
- 2025 Student Poster Prize, with Door Spruijt at the International Society of Gesture Studies Conference (Project The Kinematics of Conventionalization: Exploring the Trajectory from Gesture to Sign)
- 2024 ViCom short-term collaboration (€1500 for conducting a research project on gesture and sign kinematics with Door Spruijt at University of Cologne and Leibniz-Centre General Linguistics, Berlin)
- 2024 ViCom short-term collaboration (€300 for conducting a research project on animal pose estimation with Chiara Zulberti, Dr. Federica Amici and Prof. Katja Liebal at University of Leipzig)

## PUBLICATIONS

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### PEER-REVIEWED JOURNAL ARTICLES OR BOOK CHAPTERS

- > **Kadavá, Š.**, Ćwiek, A., and Fuchs, S. (to appear in fall 2026) Communicating from Head to Toe: The Physiological Processes in Multimodal Language. In Tseng, Ch. and Bateman, J. (eds.): *The Handbook of Linguistics and Multimodality*. Wiley/Blackwell (ISBN: 9781394321254). [Preprint](#)
- > Ćwiek, A., Fuchs, S., Pouw, W., and **Kadavá, Š.** (2026) Self-reported Expressibility Predicts Communicative Success: Open Dataset, Validation, and Simulation. *Behavior Research Methods*, 58(7), 196. DOI: [10.3758/s13428-026-03071-4](#)
- > Faytak, M.\*, **Kadavá, Š.\***, Xu, Ch.\*, Özsoy, O.\*, Akumbu, P.\*, Cardoso, A.\*, Amengual, M., Arvaniti, A., Belz, M., Bevivino, D., Casillas, J. V., Caudrelier, T., Ćwiek, A., Dokovova, M., Dutta, I., Egurtzegi, A., Forst, H., Foulkes, P., Garcia, R., Grice, M., Hanulíková, A., Hellmuth, S., Kaźmierski, K., Li, X., Lorenzen, J., Mori, M., Nycz, J., Punnoose, R., Quesada Vázquez, L., Rebernik, T., Sawicka-Stępińska, B., Sehyr, Z., Setter, J., Spaniol, M., Urrestarazu-Porta, I., Vella, A., Zhang, C., Zygis, M., Buchanan, E. M., and Roettger, T. B. (in press) Big Team Science for Language Science: Opportunities and Challenges. *Linguistics*. [OSF Preprint](#) (\* joint first authorship)

- > **Kadavá, Š.**, Ćwiek, A., Fuchs, S., and Pouw, W. (2024). What Do We Mean When We Say Gestures Are More Expressive than Vocalizations? An Experimental and Simulation Study. *Proceedings of the Annual Meeting of the Cognitive Science Society*, 46, 2308–2315. [Full paper](#)
- > Fuchs, S.\*, **Kadavá, Š.\***, Pouw, W., Walker, B., Fay, N., Winter, B., and Ćwiek, A. (2024). Exploring the Sound Structure of Novel Vocalizations. *Proceedings of EVOLANG 2024*. EVOLANG XV, Madison, Wisconsin, USA. [Full paper](#) (\* joint first authorship)
- > **Kadavá, Š.**, Ćwiek, A., Stoltmann, K., Fuchs, S., and Pouw, W. (2023). Is Gesture-Speech Physics at Work in Rhythmic Pointing? Evidence from Polish Counting-out Rhymes. *Proceedings of the 20th International Congress of Phonetic Sciences*. ICPhS 2023, Prague, Czech Republic. [Full paper](#)
- > **Kadavá, Š.**, and Zlatev, J. (2022) Cognitive Semiotics as an Emerging Discipline: An Interview with Jordan Zlatev. *The American Journal of Semiotics*, 37(3/4), 317-327. DOI: [10.5840/ajs2021373/481](https://doi.org/10.5840/ajs2021373/481)

#### PEER-REVIEWED JOURNAL ARTICLES IN PREPARATION/SUBMITTED

- > **Kadavá, Š.**, Pouw, W., Fuchs, S., Holler, J., and Ćwiek, A. (submitted). When Communication Fails, Physical Effort Increases but not to Greater Effect. *Nature Human Behavior*. (preprint under screening at bioRxiv) [Quarto](#)
- > Ahmar, D., Pouw, W., and **Kadavá, Š.** (in preparation) Mobile Multimodal Lab: An OpenSource, Low-Cost, and Portable Laboratory for the Study of Multimodal Behavior.
- > Ćwiek, A.\*, **Kadavá, Š.\***, Pouw, W., and Fuchs, S. (in preparation) Natural Statistics of Uni- vs. Multimodal Utterances. (\* joint first authorship)
- > Rosenberg, G., Ćwiek, A., Fuchs, S., Pouw, W., and **Kadavá, Š.** (in preparation) Beyond Efficiency: the Non-Linear Dynamics in the Evolution of the Manual Communicative Signals.
- > Owoyele, B.\* and **Kadavá, Š.\*** (in preparation) Computational Methods and Data for Primate Behavioral Video Analysis: A Cartography. (\* joint first authorship)
- > **Kadavá, Š.**, Ćwiek, A., Fuchs, S., and Pouw, W. (in preparation) FLESH Dataset: Biomechanical Experimental Semiotics
- > **Kadavá, Š.** and Spruijt, D. (in preparation) The Kinematics of Conventionalization. [Interactive dashboard](#)

#### SOFTWARE & RESEARCH TOOLS

- > Nalbantoğlu, H., and **Kadavá, Š.** (2025) Multi-Scenario Video and Audio Synchronization and Segmentation. [Script](#)
- > **Kadavá, Š.**, Snelder, J., and Pouw, W. (2024) Recording from Multiple Webcams Synchronously while LSL Streaming (Version 1.0.0). DOI: [10.5281/zenodo.19185923](https://doi.org/10.5281/zenodo.19185923) [Script](#)
- > **Kadavá, Š.**, and Pouw, W. (2024) 3D Motion Tracking Using Multiple Cameras with OpenPose and Pose2Sim (Version 1.0.0). DOI: [10.5281/zenodo.19185942](https://doi.org/10.5281/zenodo.19185942) [Script](#)

#### PREREGISTRATIONS

- > Ćwiek, A., **Kadavá, Š.**, Pouw, W., and Fuchs, S. (2026). Natural Statistics of Uni- vs. Multimodal Utterances [AsPredicted #274275](#)
- > **Kadavá, Š.**, Pouw, W., Fuchs, S., Holler, J., and Ćwiek, A. (2025). Putting in the Effort: Modulation of Multimodal Effort in Communicative Breakdowns during a Gestural-Vocal Referential Game. [OSF Registries](#)
- > Ćwiek, A., Pouw, W., Fuchs, S., and **Kadavá, Š.** (2024) The Relationship Between Expectation and Performance: Methodological Evaluation. [AsPredicted #200596](#)
- > **Kadavá, Š.**, Ćwiek, A., Fuchs, S. and Pouw, W. (2023) The Coordination of Dynamic Multimodal Signals in Novel Communication. [OSF Registries](#)

## PRESENTATIONS

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### INVITED PRESENTATIONS

- › **Kadavá, Š.** (06.2026) The Role of Physical Effort in Resolving Misunderstanding (and Beyond). *IMPACT Lab*, Columbia University, United States.
- › **Kadavá, Š.** (12.2025) From Visual Salience to Bodily Signal: A Movement Science Approach to Gesture, Discourse and Prominence. *ProDiGe Workshop*, University of Cologne, Germany.
- › **Kadavá, Š.** (10.2025) Regulating the Body in Communicative Challenges: Effort, Conflict & Care in Humans and Beyond. Biology Department, University of Leipzig, Germany.
- › **Kadavá, Š.** (10.2025) The Feel of Movement: From Motion Capture to Force Analysis with OpenSim. *The 14th Peripatetic Conference*, Zakopane, Poland.
- › **Kadavá, Š.** (12.2024) To Interact Is to Move: Movement as a Core Constituent of Social Interaction. *Multimodality in Social Interactions 2.0*, Aix-Marseille Université, France.
- › **Kadavá, Š.** (11.2024) MMLAB: Multimodal Mobile Lab. *CLES Colloquium*, UMK Toruń, Poland.
- › **Kadavá, Š.** (11.2024) Social Interaction Through Lenses of Bodily Effort. *CLES Colloquium*, UMK Toruń, Poland.

### CONFERENCE PRESENTATIONS

- › Rosenberg, G., Ćwiek, A., Fuchs, S., Pouw, W. and **Kadavá, Š.** (04.2026) Beyond Efficiency: the Non-Linear Dynamics in the Evolution of the Manual Communicative Signals. *EVOLANG*, Plovdiv, Bulgaria.
- › **Kadavá, Š.** and Spruijt, D. (02.2026) Kinematic Maturation of Movement into Manual Language. *48th Annual Meeting of the Deutsche Gesellschaft für Sprachwissenschaft (DGfS, German Linguistics Society)*, Trier, Germany.
- › **Kadavá, Š.**, Pouw, W., Fuchs, S., Holler, J., Ćwiek, A. (07.2025) Putting in the Effort: Modulation of Multimodal Effort in Communicative Breakdowns during a Gestural-Vocal Referential Game. *The 16th European Workshop on Ecological Psychology*, Leeds, United Kingdom.
- › **Kadavá, Š.** and Spruijt, D. (07.2025) The Kinematics of Conventionalization: Exploring the Trajectory from Gesture to Sign. *The 10th Conference of the International Society of Gesture Studies (ISGS)*, Nijmegen, Netherlands. (poster presentation, awarded with Student Poster Prize)
- › **Kadavá, Š.**, Pouw, W., Fuchs, S., Holler, J., Ćwiek, A. (08.2024) Regulating the Body in Communicative Challenges. Experimental Study under Kinematic-Acoustic Analysis. *The Fifth Conference of the International Association for Cognitive Semiotics (IACS-5)*, Lund, Sweden.
- › **Kadavá Š.** (07.2024) Repair Kinematics of Silent Gesture. *46th Annual Meeting of the Cognitive Science Society (CogSci 2024)*, Rotterdam, Netherlands
- › **Kadavá, Š.**, Ćwiek, A., Fuchs, S., and Pouw, W. (07.2024). What Do We Mean When We Say Gestures Are More Expressive Than Vocalizations? An Experimental and Simulation Study. *46th Annual Meeting of the Cognitive Science Society (CogSci 2024)*, Rotterdam, Netherlands. (poster presentation)
- › **Kadavá, Š.**, Ćwiek, A., Stoltmann, K., Fuchs, S., and Pouw, W. (08.2023). Is Gesture-Speech Physics at Work in Rhythmic Pointing? Evidence from Polish Counting-out Rhymes. *ICPhS 2023*, Prague, Czech republic. (poster presentation)
- › **Kadavá, Š.**, Jehlička, J., Lehečková, E. (05.2023) Communicative Efficiency in Pantomime and Spoken Language. *YLMP 2023*, Poznan, Poland.

## ORGANIZATION OF ACADEMIC EVENTS

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- since 2025 Co-organizer of multimodality-oriented Colloquium: MultimOst (with Silva Ladewig)
- since 2023 Co-organizer of [ZASx Talks: Phonetics & Phonology Series](#) at Leibniz-Centre General Linguistics, Berlin (with Elina Rubertus and Miriam Oschkinat)
- 03.2027 Co-organizer of Workshop [Physiological Aspects of Language across the Lifespan](#) at the 49th Annual Meeting of the Deutsche Gesellschaft für Sprachwissenschaft in Jena (with Elina Rubertus and Susanne Fuchs)
- 10.2026 Co-organizer of EnvisionBox workshop at OpenScience Meetings 2026 (grant of €11,000 from Open Science NL; with James Trujillo, Wim Pouw, Babajide Owoyele, Davide Ahmar, Anna Palmann)
- 07.2026 Co-organizer of [Multiscale Social Dynamics in Individuals and Groups Summer School](#), Tilburg University (with Travis Wiltshire, Wim Pouw, James Trujillo, Davide Ahmar, Babajide Owoyele, Anna Palmann)
- 06.2025 Co-organizer of EnvisionBox summer school, University of Amsterdam (with Wim Pouw, James Trujillo, Babajide Owoyele)
- 07.2024 Co-organizer of Symposium: [Towards a Movement Science of Communication](#) at the 46th Annual Meeting of the Cognitive Science Society in Rotterdam (CogSci 2024; with Lara Pearson, Wim Pouw, James Trujillo)
- 07.2024 Co-organizer of Theme Session: [Linguistic Bodies in Interaction](#) at the Fifth Conference of the International Association for Cognitive Semiotics (IACS-5) Conference in Lund (with Wim Pouw)
- 09.2023 Co-organizer (member of the junior committee) of [The Gesture and Speech in Interaction Conference \(GESPIN\) 2023](#)

## TEACHING

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- 08.2027 **ViCom Summer School, GOETHE-UNIVERSITÄT FRANKFURT, Germany**  
> Course in experimental track on motion tracking, biomechanical modeling, and kinematic analysis
- 07.2026 **Multiscale Social Dynamics in Individuals and Groups Summer School, TILBURG UNIVERSITY, The Netherlands**  
> Lecture How to Build a Mobile Multimodal Lab (with Davide Ahmar)  
> General support of the participants
- since 03.2026 **Python Working Group, LEIBNIZ-CENTRE GENERAL LINGUISTICS, BERLIN, Germany**  
> Instructor and facilitator of the group (with Daniela Palleschi)
- 06.2025 **EnvisionBox Summer School: Unboxing Multimodality – Analysis Pipeline for Behavioral Dynamics, UNIVERSITY OF AMSTERDAM, The Netherlands**  
> Tutorial Multimodal Merging  
> General support of the participants
- 03.2025 **How to Build Your Motion Tracking Pipeline, LEIBNIZ-CENTRE GENERAL LINGUISTICS, BERLIN, Germany**  
> 2-day workshop  
> Topics: From video to coordinates, From coordinates to clean data, From clean data to answering questions, Back to the lab, Going out of the box
- 01.2024 **Visualizing Multimodal Data, TILBURG UNIVERSITY, The Netherlands**  
> Lecture within the course Multimodal Communication at [LOT Winter School 2024](#) (by James Trujillo)

- 11.2023 | **Multimodality: What Is It And Why Does It Matter, HUMBOLDT UNIVERSITY, BERLIN, Germany**  
 > Lecture within the course [Experimentelle Untersuchungen im L2-Lauterwerb](#) (by Sarah Wesolek)

## SUPERVISION

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- 2025 | **Jorge Sanmartin Martinez, DONDERS CENTER FOR COGNITION, NIJMEGEN, The Netherlands**  
 > Daily supervision of the student assistant in the project FLESH, daily supervision
- 2024 | **Gillian Rosenberg, PRINCETON UNIVERSITY, United States**  
 2025 | > MA Thesis: [Diversity-driven Efficiency in Novel Communication through Iterated Learning](#)
- 2024 | **Hamza Nalbantoğlu, LEIBNIZ-CENTRE GENERAL LINGUISTICS, BERLIN, Germany**  
 2025 | > Daily supervision of the student assistant in the project FLESH, daily supervision
- 2023 | **Jet Lambers, Justin Snelders, DONDERS CENTER FOR COGNITION, NIJMEGEN, The Netherlands**  
 2025 | > Daily supervision of the student assistants in the project FLESH

## SERVICE TO THE PROFESSION

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- since 03.2025 | Core team member of [EnvisionBox](#) (community-based learning platform for multimodal research)
- 04.2024–03.2026 | PhD representative at Leibniz-Centre General Linguistics, Berlin
- 2022–2025 | PhD representative in the DFG Priority Program [Visual Communication](#) (ViCom, SPP 2329)

## AD-HOC REVIEWER

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- 2026 | Brain and Language (1), Evolang 2026 (3), Journal of Language Evolution (2), Cognitive Science (1)
- 2025 | ISGS 2025 (3), Cognitive Science (2), Journal of Language Evolution (1)
- 2024 | Evolang 2024 (3), MMSYM 2024 (3)
- 2023 | GESPIN 2023 (3), Psychological Research (2)

## OUTREACH

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- 06.2026 | Emotion Perception Experiment at Lange Nacht der Wissenschaft, Berlin, Germany (with ca. 70 participants)
- 06.2025 | Telephone Game Experiment at Lange Nacht der Wissenschaft, Berlin, Germany (with ca. 60 participants)
- 03.2024 | Discovering the Origins of Language, Talk at InScience Film Festival, Stand-up Science, Nijmegen, The Netherlands
- 03.2024 | Telephone Game Experiment at InScience Film Festival, Nijmegen, The Netherlands (with ca. 80 participants)

## FURTHER EDUCATION

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- ongoing Training Programme [ReSkillSpan](#) (online)
- 2025 New To The Leadership Role – A Leibniz-Exclusive Course (certificate available, online)
- 2025 Bayesian statistics, Bodo Winter (online)
- 2024 Workshop on Behavioral Dynamics in Social Interactions (Kraków, Poland)
- 2024 Statistical Rethinking, Richard McElreath (online)
- 2024 Art of Presenting Science, Artesc (Radboud University, Nijmegen, The Netherlands)
- 2023 Decision Tree-Based AI Models, Alexander Kilpatrick (Leibniz-Centre General Linguistics, Berlin, Germany)
- 2023 Introduction to Bayesian Data Analysis, Shravan Vasishth (certificate available, online)
- 2023 Multimodal Corpora Annotation with M3D, Patrick Rohrer (online)

## LANGUAGES

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Czech (native), English (C1), German (B1–B2), Spanish (A2–B1)

## SOFTWARE & SKILLS

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- Computer-vision** motion capture algorithms (e.g. OpenPose, Pose2Sim, LabGym, DeepLabCut, MediaPipe), segmentation (SAM)
- Machine Learning** eXtreme Gradient Boosting, logistic regression, Principal Component Analysis
- Multimodal Data** multimodal data collection, data synchronization, signal processing, multiscale analysis
- Data Annotation** ELAN, Praat
- Statistics** R, Bayesian multilevel modeling
- Open Science** Quarto, Git/GitHub, reproducible pipelines, preregistrations
- Programming** Python, R
- Other** LaTeX, Microsoft Office

## OTHER EXPERIENCES

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- 2019–2022 Deputy Editor-in-Chief of Student Cultural Platform Klacek, Prague (Czech Republic)
- 2018–2022 Proofreader at Deník N, Prague (Czech Republic)
- 2017–2019 Proofreader at Economia a.s., Prague (Czech Republic)
- 2016–2017 PR Assistant at Double-U PR, Prague (Czech Republic)