
CURRICULUM VITAE

DR. TABEA THIES

* 05th April 1993, Essen

📍 Dept. of Neurology

University Hospital Cologne

☎ +49 (0)221 478 98578

✉ tabea.thies@uk-koeln.de

ORCID 0000-0001-9149-3143

EDUCATION & DEGREES

- | | |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2018-2022 | DOCTOR OF PHILOSOPHY
'Effects of levodopa and deep brain stimulation on tongue body kinematics in Parkinson's disease' (summa cum laude)
Phonetics, University of Cologne, Germany |
| 2016-2018 | MASTER OF ARTS
'Dynamische Modellierung prosodischer Prominenz bei Parkinson Patienten'
Linguistics, University of Cologne, Germany |
| 2012-2016 | BACHELOR OF ARTS
'Eine akustisch-artikulatorische Analyse der Sprechmotorik bei Essentiellen Tremor Patienten mit Tiefer Hirnstimulation'
Linguistics, Phonetics & Education, University of Cologne, Germany |

PROFESSIONAL EXPERIENCE

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|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| since 2023 | POSTDOCTORAL RESEARCHER
Dept. of Neurology, University Hospital Cologne, Germany |
| 2022 | VISITING RESEARCH SCHOLAR
Dept. of Hearing and Speech Sciences, Vanderbilt University Medical Center, Nashville, TN |
| 2018-2022 | DOCTORAL RESEARCHER
Dept. of Neurology, University Hospital Cologne, Germany
a.r.t.e.s. Graduate School for the Humanities, University of Cologne, Germany |
| since 2016 | MEMBER OF RESEARCH TEAM
Brain Modulation and Speech Motor Control |
| 2016-2018 | GRADUATE RESEARCH ASSISTANT
IfL Phonetics, University of Cologne, Germany |
| 2014-2016 | RESEARCH ASSISTANT
IfL Phonetics, University of Cologne, Germany |

ACADEMIC SERVICE

JOURNAL REVIEWS

BMC Neurology, Journal of Neural Transmission, Movement Disorders, Frontiers in Aging Neuroscience, Clinical Linguistics & Phonetics, Scientific Reports

CONFERENCE (PROCEEDINGS) REVIEWS

Laboratory Phonology (LabPhon18, LabPhon19), Speech Prosody (2022, 2024), Interspeech 2023, ISSP 2024

GUEST EDITOR

Hermes, A.*, Mefferd, A.*, Thies, T.* (2021). Special Issue "Aging- and Disease-related Changes in Speech Production". Languages. (* all equal)

CO-SUPERVISION

BACHELOR THESES

Annika Mohr (2020): "Einfluss der akinetisch-rigiden Symptomatik auf die Ausprägung und den Schweregrad der Dysarthrie beim idiopathischen Parkinson-Syndrom", BA Speech Therapy, University of Cologne

Janine Schreen (2024): "Untersuchung des Zusammenhangs zwischen kognitiven Einschränkungen und depressiver Symptomatik und dem Grad und der Ausprägung der Dysarthrie bei Morbus Parkinson und Essentiellem Tremor, BA Speech Therapy, University of Cologne

MASTER THESES

Elisa Herbig (since 2023), "Speech motor control and cognition in Parkinson's Disease", MA Linguistics, University of Cologne

Janine Schreen (since 2024), MA Linguistics, University of Cologne

MEDICAL DOCTOR

Nuria Geerts (since 2021), Faculty of Medicine and University Hospital Cologne, University of Cologne

Kelly Simon (since 2024), Faculty of Medicine and University Hospital Cologne, University of Cologne

CONFERENCE ORGANISATION

04/2024	DIGITAL BIOMARKERS IN PARKINSON'S DISEASE: DIAGNOSIS AND SYMPTOM MONITORING USING SPEECH, GAIT AND COGNITION Co-chairing session at German Congress for Parkinson's disease and movement disorders Stadthalle Rostock
04/2024	PARKINSON-LOGOPÄDIE-SYMPOSIUM University Hospital Cologne
07/2022	WISSENSCHAFT TRIFFT GESELLSCHAFT Annual workshop of the a.r.t.e.s. Graduate School for the Humanities, University of Cologne
06/2022	NEUROSPEECH Interdisciplinary symposium , University of Cologne and University Hospital Cologne
07/2018	RESPIRATORY MEASURES IN SPEECH Workshop with Dr. Susanne Fuchs, University of Cologne
07/2017	DYNAMIC MODELLING 3 rd workshop of workshop series, University of Cologne

MEMBERSHIPS & ENGAGEMENT

since 2023	SPEECH IMPAIRMENT IN MOVEMENT DISORDERS STUDY GROUP
since 2023	DEUTSCHE GESELLSCHAFT FÜR PARKINSON UND BEWEGUNGSSTÖRUNGEN (DPG)
since 2019	INTERNATIONAL PARKINSON AND MOVEMENT DISORDER SOCIETY (MDS)
since 2018	ASSOCIATION FOR LABORATORY PHONOLOGY (ALP)
since 2016	COLOGNE CENTER OF LANGUAGES (CCLS)

TEACHING

2019	LECTURE „PHONETICS AND PHONOLOGY II“
2016 – 2018	SEMINAR “PHONETICS AND PHONOLOGY I”

TUTORIAL “PHONETICS AND PHONOLOGY II”

OUTREACH

- since 02/2023 **LAB TWITTER ACCOUNT**
[@SpeeDy Lab](#)
- since 12/2021 **HOMEPAGE MAINTENANCE**
[Brain Modulation and Speech Motor Control](#)
- 2016 – 2018 **WORKSHOP CHILDREN’S UNIVERSITY “OUR VOICE”**

AWARDS & SCHOLARSHIPS

- 04/2024 **GERMAN PARKINSON’S FOUNDATION**
Innovation Award “Clinical Research”, Project: Speech motor biomarkers in Parkinson's disease (100.000 €)
- 08/2023 **GERMAN ACADEMIC EXCHANGE SERVICE (DAAD)**
Travel Grant: „20th International Congress of the Phonetic Sciences (ICPhS)“ (930 €)
- 10/2022 – 12/2022 **THIEMANN FOUNDATION**
Travel Grant: Research visit at Vanderbilt University Medical Center in Nashville, Tennessee (8.500 €)
- 08/2022 **COLOGNE CENTER OF LANGUAGES (CCLS)**
Travel Grant: “8th International Conference on Speech Motor Control” (500 €)
- 07/2022 **COLOGNE CENTER OF LANGUAGES (CCLS)**
Grant for workshop organization: “Show me what you’ve got - Datenmanagement und Transparenz in den (Geistes) wissenschaften” (500 €)
- 04/2022 – 03/2023 **STIFTUNG MERCATOR**
One-year scholarship for practice-oriented research within doctoral program of the a.r.t.e.s. Graduate School for the Humanities (16.800 €)
- 03/2022 **COLOGNE CENTER OF LANGUAGES (CCLS)**
Travel Grant: “2nd Workshop on Speech Perception and Production across the Lifespan 2020” (500 €)
- 09/2019 **GERMAN ACADEMIC EXCHANGE SERVICE (DAAD)**
Travel Grant: „ International Congress of Parkinson's Disease and Movement Disorders 2019“
- 04/2019 – 03/2022 **A.R.T.E.S. GRADUATE SCHOOL FOR THE HUMANITIES**
Three-year doctoral scholarship (50.400 €)
- 01/2019 **A.R.T.E.S. GRADUATE SCHOOL FOR THE HUMANITIES**
Travel Grant: “International Symposium on Phonetics and Cognitive Sciences of Language 2019” (1.500 €)
- 07/2018 **COLOGNE CENTER OF LANGUAGES (CCLS)**
Grant for workshop organization: “Workshop on respiratory movement measures in speech” (500 €)
- 04/2018 **ASSOCIATION FOR LABORATORY PHONOLOGY (ALP)**
Travel Grant: “16th Conference on Laboratory Phonology: Variation, development and impairment: Between phonetics and phonology” (300 €)
- 07/2016 **FACULTY PRICE**
for an outstanding bachelor thesis, Faculty of Arts and Humanities, University of Cologne

ONGOING COLLABORATIONS

ANTJE MEFFERD
Vanderbilt University Medical Center, Nashville, Tennessee, US

ANNE HERMES

Université Sorbonne Nouvelle, CNRS, LPP, Paris, France

SERGE PINTO

Aix-Marseille Univ, CNRS, LPL, Aix-en-Provence, France

JAN HLAVNICKA

Czech Technical University in Prague, Prague, Czech Republic

JOHANNES TRÖGER

ki:elements GmbH

QUALIFICATIONS & TRAINING

07/2023	COMMUNICATING SCIENCE SUCCESSFULLY WITH MEDIA AND THE PUBLIC Workshop with Dr. Elisabeth Hoffmann, Dr. Anna Euteneuer, and Lennart Backs, University of Cologne
11/2021	WISSENSCHAFT ERFOLGREICH KOMMUNIZIEREN Workshop with Nicole Körkel
07/2019	3rd SPEECH AND SWALLOWING SCHOOL MDS-ES, Directors: Dr. Jan Rusz and Dr. Elina Tripoliti, Prague, Czech Republic
09/2016	VOICE, RESPIRATION, PRESENTATION Training, Female Career Center, University of Cologne

SUMMARY OF CURRENT RESEARCH ACTIVITY

As a phonetician, I am interested in the speech production of patients with movement disorders with a special focus on REM sleep behavior disorder, Parkinson's disease and Essential Tremor. By using acoustic and kinematic speech recordings, I aim to understand speech mechanisms that induce dysarthria, on the one hand, but to also investigate disease and treatment effects on speech, on the other hand. Speech deficits can occur as side effects of a deep brain stimulation, as so-called stimulation-induced dysarthria. The understanding of the effects of DBS on brain networks responsible for speech is essential for the optimization of stimulation parameters or even electrode placement during surgery to improve the treatment.

PUBLICATIONS

MONOGRAPH

Thies, T. (2023) Tongue Body Kinematics in Parkinson's Disease: Effects of Levodopa and Deep Brain Stimulation. In Fuchs, S. & Perrier, P. (Eds.). *Speech Production and Perception*, Vol. 7. Berlin, Deutschland: Peter Lang Verlag. DOI: <https://doi.org/10.3726/b20799>

PEER-REVIEWED JOURNAL ARTICLES

Jergas, H., Petry-Schmelzer, J.N., Hannemann, J., **Thies, T.**, Strelow, J.N., Rubi-Fessen, I., Quinting, J.M., Baldermann, J.C., Mücke, D., Fink, G.R., Visser-Vandewalle, V., Dembek, T. & Barbe, M.T. (under review) One side effect – two networks? Lateral and postero-medial stimulation spreads induce dysarthria in subthalamic deep brain stimulation for Parkinson's Disease. *Journal of Neurology, Neurosurgery, and Psychiatry*. (Preprint is available here: <https://doi.org/10.1101/2023.04.26.23289100>)

Thies, T., Barbe, M. T. & Mücke, D. (under revision). Prosody matters: Preserved prominence marking strategies in people with Parkinson's disease independent of motor status. *Plos One*.

Mücke, D., Roessig, S., **Thies, T.**, Hermes, A. & Mefferd, A. (2024) Challenges with the kinematic analysis of neurotypical and impaired speech: measures and models. *Journal of Phonetics*, 102, 101292. DOI: <https://doi.org/10.1016/j.wocn.2023.101292>

Thies, T., Jergas, H., Mücke, D., Brandt, G. A., Visser-Vandewalle, V., Pinto, S. & Barbe, M.T. (2023) The effects of STN-DBS on motor speech: A longitudinal articulatory study. *Brain stimulation*, 16(6), 1598-1600. DOI: <https://doi.org/10.1016/j.brs.2023.10.013>

- Thies, T.,** Mücke, D., Geerts, N., Seger, A., Fink, G.R., Barbe, M.T. & Sommerauer, M. (2023) Compensatory articulatory mechanisms preserve intelligibility in prodromal Parkinson's disease. *Parkinsonism and related disorders*, 112, 105487. DOI: <https://doi.org/10.1016/j.parkreldis.2023.105487>
- Lowit, A., **Thies, T.,** Steffen, J., Scheele, F., Roheger, M., Kalbe, E. & Barbe, M.T. (2022) Task-based profiles of language impairment and their relationship to cognitive dysfunction in Parkinson's disease, *Plos One*, 17(10): e0276218. DOI: <https://doi.org/10.1371/journal.pone.0276218>
- Thies, T.,** Hermes, A. & Mücke, D. (2022) Compensation in time and space: Prominence marking in aging and disease. *Languages*, 7, 21. DOI: <https://doi.org/10.3390/languages7010021>
- Thies, T.,** Mücke, D. Dano, R. & Barbe, M.T. (2021) Levodopa-Based Changes on Vocalic Speech Movements during Prosodic Prominence Marking. *Brain Science*, 11(5), 594. DOI: <https://doi.org/10.3390/brainsci11050594>
- Steffen, J.K., Jergas, H., Petry-Schmelzer, J. N., Dembek, T.A., **Thies, T.,** Jost, S.T., Dafsari, H.S., Kessler, J., Wirths, J., Fink, G.R., Visser-Vandewalle, V. & Barbe, M.T. (2020) Thalamic Deep Brain Stimulation in Essential Tremor Plus Is as Effective as in Essential Tremor. *Brain Science*, 10(12), 970. DOI: <https://doi.org/10.3390/brainsci10120970>
- Petry-Schmelzer, J. N., Jergas, H., **Thies, T.,** Steffen, J. K., Reker, P., Dafsari, H. S., Mücke, D., Fink, G. R. Fink, Visser-Vandewalle, V., Dembek, T.A. & Barbe, M. T. (2020) Network Fingerprint of Stimulation-Induced Speech Impairment in Essential Tremor. *Annals of Neurology*, 89, 315-326. DOI: <https://doi.org/10.1002/ana.25958>
- Becker, J., **Thies, T.,** Petry-Schmelzer, J. N., Dembek, T. A., Reker, P., Mücke, D., Grice, M., Visser-Vandewalle, V., Fink, G. & Barbe, M.T. (2020) The effects of thalamic and posterior subthalamic deep brain stimulation on speech in patients with essential tremor – a prospective, randomized, doubleblind crossover study. *Brain and Language*, 202, 104724. DOI: <https://doi.org/10.1016/j.bandl.2019.104724>
- Thies, T.,** Mücke, D., Lowit, A., Kalbe, E., Steffen, J. & Barbe, M.T. (2020) Prominence marking in Parkinsonian speech and its correlation with motor abilities and cognition. *Neuropsychologia*, 137, 107306. DOI: <https://doi.org/10.1016/j.neuropsychologia.2019.107306>
- Reker, P., **Thies, T.,** Josten, A., Steffen, J., Dafsari, H.S., Visser-Vandewalle, V. & Barbe, M.T. (2019) Evaluation of a German version of the Bain and Findley Tremor ADL Scale. *Parkinsonism and Related Disorders*, 68, 46-48. DOI: <https://doi.org/10.1016/j.parkreldis.2019.09.024>
- Hermes, A., Mücke, D., **Thies, T.,** & Barbe, M.T. (2019) Coordination patterns in Essential Tremor patients with Deep Brain Stimulation: Syllables with low and high complexity. *Laboratory Phonology: Journal of the Association for Laboratory Phonology*, 10(1), 6. DOI: <http://doi.org/10.5334/labphon.141>

PEER-REVIEWED CONFERENCE PROCEEDINGS

- Herbig, E., **Thies, T.,** Barbe, M.T. & Mücke, D. (2024). The Role of Cognitive Efficiency and Levodopa on Articulatory Timing. *13th International Seminar on Speech Production*, May 13 - 17, 2024, Autrans, France.
- Thies, T.** Buech, P. & Hermes, A. (2024). Advancing Speech Breathing Analysis: Benefits of Using EMA. *13th International Seminar on Speech Production*, May 13 - 17, 2024, Autrans, France.
- Mücke, D., **Thies, T.,** Büch, P., Furlani, N., Schreen, J. & Hermes, A. (2023). Variability in space, compensation in time: Effects of aging on tongue body kinematics with respect to prosodic focus marking. *20th International Congress of the Phonetic Sciences*, 7 – 11 August 2023, Prague, Czech Republic.
- Thies, T.,** Mücke, D., Ding, A. & Mefferd, A. (2023). Phase relations between the tongue body and the jaw across rate modifications in younger and older speakers. *20th International Congress of the Phonetic Sciences*, 7 – 11 August 2023, Prague, Czech Republic.
- Raines, C., **Thies, T.,** Ding, A. & Mefferd, A. (2023). Aging effects on sentence-length velocity distribution characteristics of the tongue and jaw. *20th International Congress of the Phonetic Sciences*, 7 – 11 August 2023, Prague, Czech Republic.
- Thies, T.,** Mücke, D., Dano, R. & Barbe, M.T. (2021). Correlation between levodopa response and acoustic parameters of prominence marking as well as tongue body movements in patients with Parkinson's disease. *12th Seminar on Speech Production 2020*, 14-18 December 2020.
- Mücke, D., **Thies, T.,** Mertens, J. & Hermes, A. (2021). Age-related effects of prosodic prominence in vowel articulation. *12th Seminar on Speech Production 2020*, 14-18 December 2020.

- Hermes, A., Mücke, D., **Thies, T.** & Barbe, M.T. (2019). Intragestural variation in natural sentence production: Essential Tremor patients treated with DBS. *Interspeech 2019*, 15-19 September 2019, Graz, Austria.
- Thies, T.**, Röhr, C.T., Baumann, S. & Grice, M. (2017). Prosodic Marking of Information Status in Picture Story Descriptions. *Proceedings of the Conference on Phonetics & Phonology in German-Speaking Countries*, P&P 13, Sept 28-29, 2017. HU: Berlin
- Röhr, C.T., **Thies, T.**, Baumann, S. & Grice, M. (2016). Prosodic marking of Information Status in Task-Oriented Dialogues. *Proceedings of the Conference on Phonetics & Phonology in German-Speaking Countries*, P&P 12, Oct 13-14, 2016, München: LMU.
- Thies, T.**, Hermes, A. & Mücke, D. (2016). Coordination Deficits in Essential Tremor Patients with Deep Brain Stimulation. *Proceedings of the Conference on Phonetics & Phonology in German-Speaking Countries*, P&P 12, Oct 13-14, 2016, München: LMU.

INVITED TALKS

- Thies, T.** (2024). Unveiling Parkinson's Disease Features for AI-driven Analysis: Relevance of Acoustics, Kinematics and Perception, SRPP, May 3, 2024, Sorbonne Nouvelle, Paris, France.
- Thies, T.** (2024). Speech-based biomarkers in Parkinson's disease, Talk at Biomarker Development Group Meeting, March 22, 2024, Forschungszentrum Jülich, Jülich, Germany.
- Thies, T.** (2023). Sprechstörungen bei Parkinson: Von der Forschung in die Klinik. 17. Kölner Parkinson-Symposium, November 18, 2023, Uniklinik Köln, Cologne, Germany.
- Thies, T.** (2023). Speech characteristics and speech biomarkers in Parkinson's disease. Guest lecture, November 14, 2023, HHU Düsseldorf, Germany.
- Thies, T.** & Mücke, D. (2023). Sprechmotorische Symptome im Verlauf der Parkinson Erkrankung. Psycholinguistisches Forschungskolloquium, June 28, 2023, Cologne, Germany.
- Thies, T.** (2022). Speech as biomarker? Speech in patients with REM sleep behavior disorder and in patients with Parkinson's disease. NeuroSpeech, June 20, 2022, Cologne, Germany.
- Thies, T.** (2019). Sprachstörungen bei Morbus Parkinson. 13. Patienten-Seminar Morbus Parkinson, September 6, 2019, Cologne, Germany.
- Thies, T.** & D. Mücke (2018). Influencing Factors on the Production of Prosodic Prominence in Parkinsonians. Research Colloquium IfL Phonetic, 16 July 2018, Cologne, Germany.
- Thies, T.** (2018). Atypical Speech: Acoustics in Parkinsonians. Workshop on "Language and Dynamic Representations", PCCM 5, 29-31 May 2018, Paris Diderot, France.