



Deutsche
Sporthochschule Köln
German Sport University Cologne



Berlin Gesture Center



NEUROGES –

**A coding system for hand movement
behavior and gesture**

Seminar I: Hand movement behavior

The NEUROGES Training

NEUROGES - A coding system for the empirical analysis of hand movement behavior and gesture as a reflection of cognitive, emotional, and interactive processes

The NEUROGES Coding System is a research tool for the empirical analysis of spontaneously displayed hand movement behavior that accompanies interaction, cognitive processes, and emotional experience (www.neuroges-bast.info). NEUROGES is designed for diagnostic purposes as well as for basic research, i.e., to further explore the anatomy of hand movement behavior and gesture in its relation to cognitive, emotional, and interactive processes. Fields of application are interaction analysis incl. psychotherapy, psychodiagnostics, experimental and clinical neuropsychology, linguistics, and anthropology. In combination with the annotation software ELAN, in a multi-stage evaluation process resulting in more and more fine-grained units, the behavior is segmented and classified according to the movement criteria. The objectivity, reliability, and validity of the NEUROGES categories and values has, thus far, been tested in 18 empirical research studies, including more than 500 participants of different cultures, healthy adults and children as well as individuals with brain damage or mental disease (Lausberg & Slöetjes, 2015).

The NEUROGES Training

The training in the NEUROGES system comprises two seminars (<http://neuroges.neuroges-bast.info/training>):

- Seminar I: Hand movement behavior
- Seminar II: Gestures and conceptual hand movements

Each seminar can be booked separately. However, for the participation in Seminar II knowledge of the content of the previous seminar is strongly recommended.

Robert Rein

PhD, Graduate in Sports Science, Sports Medicine, and Physics, research assistant at the Institute of Cognitive and Team / Racket Sport Research German Sport University Cologne.

Melanie Seiler

PhD, Graduate in Biology. Since 2013, research assistant at the Department of Neurology, Psychosomatic Medicine, German Sport University Cologne. Her main research interest is the behavioral science.

Harald Skomroch

Graduate in Sports Science, English Studies and Educational Science. Since 2009, working at the Department for Neurology, Psychosomatic medicine, and Psychiatry, German Sport University Cologne, first as a student assistant, after his graduation in 2011 as a research assistant. He held workshops on NEUROGES and internal rater trainings and worked on different projects investigating hand movement behavior as well as interpersonal coordination.

Han Slöetjes

Software developer at the Max Planck Institute for Psycholinguistics in Nijmegen (The Netherlands). He is a Sun certified Java programmer who joined the Technical Group at the MPI in 2003. There, he is mainly occupied with the further development of the multimedia annotation tool ELAN (<http://www.lat-mpi.eu/tools/elan>) and is currently the main responsible person for maintaining, extending and teaching this tool.

Lecturers

Ingo Helmich

PhD, Graduate in Sports Science. Since 2009, research assistant at the Department of Neurology, Psychosomatic Medicine, and Psychiatry, German Sport University Cologne. His main research interest is the neuropsychology of movement behavior. Furthermore, he investigates neural processes of sports-related concussion and works on the development of functional Near InfraRed Spectroscopy as a brain imaging device.

Ippokrates Konstantinidis

Since 2013, student research assistant at the Department for Neurology, Psychosomatic medicine, and Psychiatry at the German Sport University Cologne. Working with NEUROGES for the AUVIS project.

Hedda Lausberg

Full Professor of Neurology, Psychosomatic Medicine, and Psychiatry at the German Sport University Cologne. Co-founder of the Berlin Gesture Center. Her main research interest is the neuropsychology of movement behavior, i.e., the relation between movement behavior and cognitive, emotional, and interactive processes. Furthermore, she focuses on method development in movement analysis. She has developed the NEUROGES-system and the BAST-system.

Niklas Neumann

Since 2015, student research assistant at the Department for Neurology, Psychosomatic medicine, and Psychiatry at the German Sport University Cologne. Working with NEUROGES for the SOPHONET project.

Seminar I: Hand movement behavior

Part 1: 15 – 17 February 2017

Preliminary Program

15.02.2017 Background NEUROGES, ELAN, Module I Activation and Structure

09:00 – 10:30 Aims and Theoretical Background of the NEUROGES System

10:45 – 12:15 Module I and the Activation category; Introduction to ELAN

13:30 – 15:00 Application of NEUROGES-ELAN; Activation Coding; Recent Empirical Data on the Activation category

15:30 – 17:00 The Structure category

16.02.2017 Module I Structure and Focus categories, Empirical Research

9:00 – 10:30 Structure Coding

10:45 – 12:15 Recent Empirical Data on the Structure category

13:30 – 15:00 The Focus category

15:30 – 17:00 Focus Coding and Concatenation

17.02.2017 Focus category, Module II, Contact category

9:00 – 10:30 Recent Empirical Data on the Focus category and on concatenated StructureFocus values

10:45 – 12:15 Module II and the Contact category

13:30 – 15:00 Contact Coding and Concatenation

15:30 – 17:00 Recent Empirical Data on the Contact category; Preparing the self-study phase

Self-study phase

Repetition of the Modules I and II.1 values with the interactive CD

Modules I and II.1 coding of the 4 training videos on the interactive CD

Part 2: 13 and 14 March 2017

13.03.2017 Supervision Modules I and II.1, exam

09:00 – 10:30 Supervision of self-study training video codings

10:45 – 12:15 Supervision of self-study training video codings

13:30 – 15:00 Exam

15:30 – 17:00 Exam

14.03.2017 EasyDiag, reliability, statistical procedures, supervision of the participants' own research projects

9:00 – 10:30 Assessing interrater agreement with EasyDiag

10:45 – 12:15 Reference frames for assessing study reliability

13:30 – 15:00 Statistical procedures for NEUROGES studies

15:30 – 17:00 Individual supervision of the participants' own research projects

Information and Registration

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Deadline for registration (applies also to free of charge participants):

December 31, 2016. **The number of participants is limited to 12.** In case of more than 12 registrations, these are considered according to the temporal order of receipt.

Seminar fee

Fee for seminar I: 325 €, reduced 275 € (for students)

Fee for seminars I and II: 640 €; reduced 485 € (for students)

The fee for seminar I includes the NEUROGES course reader (published in Peter Lang), the Coding Manual, the interactive training CD, the NEUROGES template, and the participation in the exam (successful participants are given the NEUROGES rater certificate).

Venue

German Sport University Cologne

Am Sportpark Müngersdorf 6

50933 Cologne, Germany

Public transportation by Tram 1, direction Weiden West / Junkersdorf;

Stop: Junkersdorf / Sporthochschule