



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**

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## The NEUROGES Training

### **NEUROGES - A coding system for the empirical analysis of hand movement behavior 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](http://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 its relation to cognitive, emotional, and interactive processes. Fields of application are interaction analysis incl. psychotherapy, psychodiagnostics, and experimental and clinical neuropsychology. 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 have been tested in empirical research studies, thus far including 360 participants, healthy adults as well as patients with brain damage or mental disease. The analysis of the group differences in hand movement behavior as well as kinetographic and brain imaging studies provide evidence that the NEUROGES categories and values are associated with specific cognitive, emotional, and interactive processes.

### **The NEUROGES Training**

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

Seminar I: Hand movement behaviour

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, Department of Neurology, Psychosomatic Medicine, and Psychiatry, 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.

### **Megan Sierz**

Graduate in Dance Culture. Since 2010, student research assistant at the Department for Neurology, Psychosomatic medicine, and Psychiatry, German Sport University Cologne. Working with NEUROGES for different projects.

### **Harald Skomroch**

Graduate in Sports Science, English Studies and Educational Science. Since 2009, student assistant at the Department for Neurology, Psychosomatic medicine, and Psychiatry at the German Sport University Cologne where he graduated in 2011. He has been holding workshops on NEUROGES and internal rater trainings since 2011. He is research assistant at the same department, working 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

### Jana Bryjova

Research Assistant and PhD student at the Department of Psychology, University Fribourg (Switzerland). Graduated in Clinical Psychology at the Humboldt University, Berlin and trained in the NEUROGES coding system. She worked as a student assistant at the Department of Psychosomatic Medicine in Dresden and Jena (under the supervision of Hedda Lausberg). She developed an interactive learning tool for the purpose of enhancing comprehension of the NEUROGES coding system as well as for teaching and training purposes.

### Daniela Dvoretzka

Graduate in psychology. Since 2010, research assistant at the Department of Neurology, Psychosomatic Medicine and Psychiatry, German Sport University Cologne. Her main research interest is the nonverbal interaction in psychotherapy.

### Ingo Helmich

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.

## Seminar I: Hand movement behaviour

Part 1: 09.-11.02.2015

### 09.02.2015 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  |

### 10.02.2015 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                  |

### 11.02.2015 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: 16.-17.03.2015

#### 16.03.2015 Supervision Modules I and II.1, interrater agreement, statistics and 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 Assessing interrater agreement

15:30 – 17:00 Statistical analyses of NEUROGES data

Modules I and II.1 exam

#### 17.03.2015 ELAN Advanced, Supervision of the participants' own research projects

9:00 – 10:30 ELAN Advanced

10:45 – 12:15 ELAN Advanced

13:30 – 15:00 Individual supervision of the participants' own research projects

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

## Information and Registration

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### Deadline for registration:

December 15, 2014. **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