

Understanding body movement in interaction
The analysis of nonverbal behaviour with NEUROGES®-ELAN

The analysis of body motion in interaction remains a methodological challenge in gesture and multi-modal interaction research. While Birdwhistell's original approach of kinesic recording (1952) was based on the identification of kines as isolated units of body motion, the method presented in this seminar operates with more complex phenomenological classes of body movements identified on neuropsychological grounds, as a reflection of mental processes.

In addition to the theoretical introduction to nonverbal behaviour analysis (among others dealing with behaviour segmentation, operationalization of body movement types and registration of body movement laterality), the seminar includes practical sessions with self-experience exercises and training of kinesic behaviour coding with NEUROGES®-ELAN (www.neuroges-bast.info). Furthermore, recent empirical data on kinesic behaviour and nonverbal interaction are presented. Participants can acquire a NEUROGES rater certificate after successful exam.

Gesture and Action Analysis with NEUROGES-ELAN

The challenge to analyse gestures that accompany speech has yielded numerous gesture coding systems that are each tailored and suitable for different research approaches. However, the question of the objectivity and reliability of the coding system often remains unaddressed.

In this seminar, we present an Efron (1941) inspired approach to the analysis of gesture and action based on the visual appearance of the movement. NEUROGES® is an objective and reliable system for the analysis of speech-accompanying hand movements and gestures. Up to now, it has been applied for the analysis of hand movements and gestures in more than 500 individuals from different cultures (Germans, U.S. Americans, francophone and anglophone Canadians, Suisse, Koreans, Kenyans, and Papua New Guineans), including healthy individuals as well as individuals with brain damage and with mental illness. A recent review of 18 empirical studies using NEUROGES® in combination with ELAN demonstrates a good reliability of the system.

Since neuropsychological research provides evidence that some gesture types are generated in the right hemisphere independent from left-hemispheric speech production, and phenomenologically, the existence of gesture - speech mismatches has been demonstrated, NEUROGES® offers the methodological approach to first analyse gestures as a means of expression per se, i.e., to analyse the mental image behind the gesture. In a second step the relation to speech can be explored.

Contents of the seminar:

- theoretical introduction to gesture and action analysis
- practical training in gesture and action coding with NEUROGES®-ELAN
- practical sessions with self-experience exercises (given that there is ample empirical evidence that the execution of specific gestures improves the perception)
- presentation of recent empirical NEUROGES® studies on gesture
- optional: acquisition of the NEUROGES® rater certificate after successful exam

Gesture and Nonverbal Interaction Research Methodology

The seminar responds to the demand for a methodological training tailored for gesture and non-verbal interaction research. Given two recent surveys on methodological knowledge in gesture and nonverbal interaction researchers, it addresses recurrent methodological questions in the field. Important topics such as study design and experimental setting, consent forms, observer training, pseudo-randomized coding schedules, reliability assessment, registration of body movement laterality, methods of interaction analysis for the detection of mirroring and turn-taking, and subject-appropriate measures and statistical methods are dealt with. The seminar suggests an interdisciplinarily grounded basic methodology for gesture and nonverbal interaction research that suits the specific requirements of the analysis of gesture and body movement as visible temporo-spatial phenomena.

Lecturers: Univ.-Prof. Dr. Hedda Lausberg, Jun.-Prof. Dr. Ingo Helmich, Sabrina von Au (M.Sc.), Florian Klingner (M.Sc.)

Dates & Venue:

August, 08 – 11, 2023

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Registration deadline: July 15, 2023

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The number of participants is limited to 8.

Seminar Fees:

220 €, reduced 170 € (for students)