

Talk Announcement for the Psychological Research Colloquium, Winter Term 2019/20

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**Attitudes towards errors and emotional reactions:  
A facereading approach**

Thursday, 16 January 2020, 17:30 – 19:00, Room 2108/D

**Abstract:** Errors can be considered important factors in the learning process in that they prompt numerous learning opportunities (e.g., recognizing knowledge gaps, encouraging new learning activities, etc.). However, as errors often have a highly emotional self-reference that can lead to negative emotions and a decrease in learning motivation, a beneficial use of errors requires high self-regulation from learners, especially in terms of affective-motivational regulation (Tulis & Dresel, 2018). Such regulative processes can enable an adaptive reaction to errors that allow a modification of the learning behavior and the use of adequate strategies directed at understanding the origin of the error and how it can be corrected. To this end, prior research identified affective reactions towards errors as important personal factors for understanding how adaptively a learner might react to errors. A fundamental challenge of empirical investigations regarding this topic entails accurately gaining information about the prevalence and regulation of emotions that learners experience after errors. Self-report questionnaires are often used for this purpose in a retrospective manner (so as not to disturb the learning situation), yet are repeatedly criticized for potential biases. One potential solution for this methodological issue involves acquiring information about the emotions that learners feel directly after errors by use of Facereading software to capture the immediate emotions of learners through automatic facial analysis. The current study aimed to investigate this research avenue by asking 86 students to answer knowledge questions within a 50-minute learning unit on the topic of “research methods and statistics”, while simultaneously recording their facial expressions. We present the captured emotions of learners after providing incorrect (38%) versus correct (62%) answers and analyze the development of their emotions after errors. Furthermore, we discuss findings regarding successful affective-motivational regulation and the connection with self-reported attitudes towards errors. Overall, our study highlights the importance of affective-motivational processes in adaptively dealing with errors and discusses Facereading-methodology as a possibility for objectively capturing emotional experiences of learners.

**All colleagues, doctoral researchers and students are cordially invited.**