Affective Self-Regulation in Day-to-Day Life: Applying Mobile Technology as a Research Instrument

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Two Central Purposes

1. Development of a technology that makes micro-longitudinal components feasible in heterogeneous samples (e.g., large-scale household panels)
   Requirements:
   - Manageability in large and widely distributed samples (i.e., mobility, management facilities for data collection and storage)
   - Flexibility (i.e., easy study setup, accommodation of various item and task formats, implementation of complex assessment schedules)
   - Ecological validity

2. First application of technology in a study on the development of day-to-day affective self-regulation

Ad (1): Technology Development: Experience Sampling with Mobile Phones

- Java-client on mobile phones
  - Control of assessment schedule
  - Display of items and tasks
  - Input of responses
  - Immediate data upload to server

- Server
  - Data storage
  - Web interface
    - Study setup and modification
    - Display of individualized assessment schedules
    - Visualization of response compliance

Planned Extensions

1. Psychophysiological monitoring in daily life (Co-PI: Viktor Müller)
   - Combination with ambulatory monitoring via Varioport
   - Planned foci: Physical activity, cardiovascular activation

2. Interactive Experience Sampling
   - Implementation of event-contingent assessment schedules in social systems (including low-frequency events, like marriage, divorce, employment, re-employment)

Ad (2): An Application in Progress: Day-to-Day Affective Self-Regulation from Adolescence to Older Adulthood

- Affective self-regulation: Ability to influence which affective states to have, when to have them, and how to experience and express them (Gross, 1998)

- Few studies suggest age-related improvement in affect-regulation competence throughout adulthood (Gross et al., 1997; Lawton et al., 1993; but see Kuntzmann et al., 2005)

- Evidence on age-related changes in affective self-regulation as it occurs in people’s day-to-day lives and natural environments is limited (Grossman et al., 2009)

This study: How do phenomenology, effectiveness, and attentional requirements of day-to-day affective self-regulation develop from adolescence to older adulthood?

Working Model

Exemplary Predictions (Selection)

- Affect-regulation effectiveness increases from adolescence to older adulthood. This is not (solely) due to differences in exposure to affect-eliciting events, but (partly) due to differences in affect attitudes, affect knowledge, and affect-regulation flexibility.

- Attentional demands of affect-regulatory attempts are stronger the more intense the to-be-regulated affect is, and increase with age from adolescence to older adulthood (not necessarily linearly).

Method of Pretest

N = 270; 14 to 80 years, stratified by age, gender, education
T1 (Questionnaires) ‘Y’ Experience Sampling ‘Y’ T2 (Questionnaires)
54 experience samples:
- 3 x 3 days, 6 daily assessments, additional days when misses
- Assessment of momentary context, hassles and uplifts, affect, regulation goals and strategies, and numerical memory updating