

Daily Worry and Physiological Reactivity to Psychosocial Stress: An Experimental and Ecological Assessment on Stress Anticipation

Friday, September 12, 2025 6:00 PM (10 minutes)

Adjusting to minor psychosocial stressors, such as public speaking, is crucial for promoting health and well-being. However, not everyone manages this effectively, which can lead to chronic stress, illness, and affective psychopathology. According to the perseverative cognition hypothesis, repetitive negative thinking like worry and rumination prolongs stress-related affective and physiological activation, especially before and after a stressor, rather than during it, when such processes may even serve a protective function.

We tested this hypothesis through an experimental study combining real-life experience sampling with a lab-based public speech task. Participants completed three lab sessions at T1 (day 1), T2 (day 2), and T3 (day 3), each including a resting ECG recording. At T1, participants were informed they would face a moderate psychosocial stressor on T2. On T2, participants underwent the Trier Social Stress Test. For each session, affective state was measured using the State-Trait Anxiety Inventory. Daily worry was assessed via a smartphone app, distinguishing between situational worry related to the specific stressor (i.e., the upcoming lab task) and situational worry related to nonspecific worrisome content (i.e., general negative and repetitive thoughts).

Preliminary analyses (N = 15) support the hypothesized psychophysiological pattern: higher levels of stressor-related situational worry predicted elevated heart rate (HR) at T1 and T3, but not during the stressor at T2. In contrast, higher levels of nonspecific worry were associated with lower HR across sessions. Both worry types, however, were linked to increased subjective anxiety before the stressor.

If you're submitting a symposium talk, what's the symposium title?

If you're submitting a symposium, or a talk that is part of a symposium, is this a junior symposium?

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