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## **MIND-BODY INTERACTIONS IN WRITING (M-BW): PSYCHOPHYSIOLOGICAL AND LINGUISTIC SYNCHRONOUS CORRELATES OF EXPRESSIVE WRITING**

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**Background:** Contrary to common belief, writing is an embodied activity. Notwithstanding, the bodily manifestations of the mind while writing have barely been studied. In the M-BW project two main studies were planned to explore electrodermal activity (EDA), heart rate (HR), respiration, handwriting and emotional vocabulary use while the mind is engaged in an expressive writing task. Expressive writing is a particular form of writing in which a person narrates a personal deeply charged emotional event, typically a major trauma.

**Aims:** Over the last thirty years, a wealth of research has consistently shown that expressive writing triggers a considerable number of benefits on health, psychological well-being, and personal growth. Despite the many healing effects, the mechanism through which expressive writing operates is still poorly understood. In this project, we propose that mind-body interactions during writing, as revealed by an exploration of psychophysiological indexes and linguistic markers, might prove instructive to understand how expressive writing operates.

**Method:** The planned M-BW first study is currently underway and for its accomplishment several preparatory steps were crucial, particularly the developments of a Portuguese emotional lexical database (EMOTAIX.PT, comprising about 4000 emotional words) and of a writing logging tool (HandSpy, allows real time recording and analyses of handwriting) which needed to be integrated into a common software solution, that at some point will also allow the visualization of real time psychophysiological channels concomitant to text production (HandSpy 3.0). In the first study we adopted the basic expressive writing paradigm developed by Pennebaker and measured EDA, HR, respiration and online text production across three experimental conditions: emotional processing, cognitive processing and control. Participants of the three groups will also be compared in pre-post intervention design on measures of anxiety, depression, college adjustment, and academic achievement at a three-months follow-up.

**Preliminary results:** Data collection for the first experiment was recently completed and the M-BW multidisciplinary team is engaged in HandSpy development, data post-processing and coding, and hypotheses testing. As far as we know, the psychophysiological and linguistic synchronous correlates of expressive writing have not been studied before and we believe they might play a role in unleashing expressive writing healing effects.

**Keywords:** Expressive writing, Emotional lexical database, Psychophysiological indexes, HandSpy

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