

# Same memory, different words: The Role of Language, Proficiency and Cognitive Load in Traumatic Autobiographical Memory Recall

**Eleni Papadopoulou**

Deree, American College of Greece, Athens, Greece

**Eirini Balta**

Panteion University of Social and Political Sciences, Athens, Greece

**Argiro Vatakis**

Panteion University of Social and Political Sciences, Athens, Greece

**Eleni Orfanidou**

Deree, The American College of Greece, Athens, Greece

## Abstract

Literature indicates that lingua franca use in clinical settings impacts bilinguals communicating in their second language (L2)—but what drives these changes? This study examined how language, proficiency, and cognitive load influence emotionality during traumatic autobiographical memory (AM) retrieval. Building on evidence that L2 use diminishes emotional resonance, we hypothesized that proficiency would moderate this effect. Additionally, we expected lower emotionality in first-language (L1) recall under cognitively demanding conditions, mirroring second-language effects. Greek native speakers (N=107) recalled a traumatic AM in L1, L2 (English), or L1 under cognitive load (visuospatial working memory task) while undergoing physiological EDA assessment. Self-reported arousal, distress, and traumatic symptoms were measured. Notably, L2 alone did not lower emotional intensity—only lower L2 proficiency did, highlighting its key moderating role. Cognitive load during L1 retrieval significantly decreased emotionality, supporting resource-dependent emotional processing models. These findings reveal proficiency and cognitive demands' interplay in shaping bilingual emotional processing.