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Emotional process through autobiographical memory

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HAL Authorization

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Introduction

Self defining Memories (SDM) are highly significant autobiographical memories that contribute to the construct of identity (Conway et al., 2004). SDM are vivid, emotional and carry the values of the individuals (Conway et al., 2004 ; Singer & Blagov, 2000). However, to the best of our knowledge, no study has evaluated psychophysiological changes that may be related to emotional processes in SDM.

Objectif

The aim of this study is to examine the emotional process involved during the evocation of SDM using neurovegetative indicators.

We recorded both a marker of emotional activation of the sympathetic system (electrodermal activity) and an indicator of the parasympathetic system (High frequency of the Heart-rate variability, HF-HRV) to characterize the emotional processes.

Methods

Participants

29 healthy adults (25-35y)

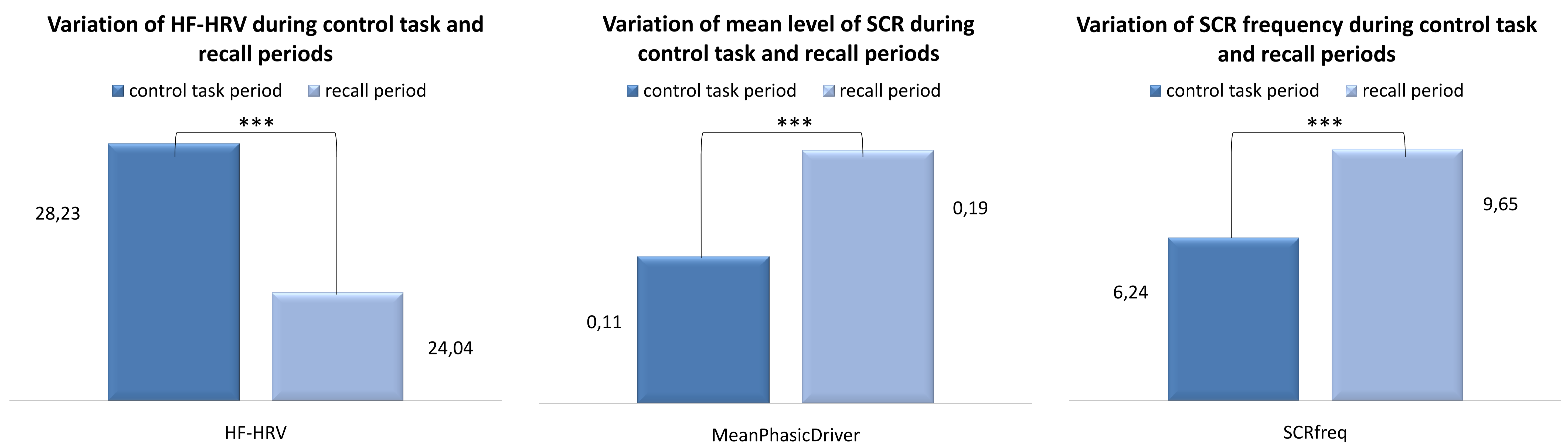
Procedure

Electrocardiogram and skin conductance signals were recorded during two periods :

- control task
- recall and evocation of 5 SDM

Results

- HF-HRV decrease from control task period to recall period.
- Mean deviations of standard electrodermal responses (MeanPhasicDriver) and the responses frequency (SCRfreq) increase from relaxation period to recall period.



Notes: Wilcoxon Test ; Significance level indicated by the following symbols: * $p < .05$, ** $p < .01$, *** $p < .001$

Conclusion

Relatively to the control task, SDM retrieval resulted in an activation of sympathetic and parasympathetic nervous system.

These physiological activations highlight the role of emotional processes and regulation mechanisms during SDM retrieval.

References

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- Singer, J. A., & Blagov, P. S. (2000). Classification system and scoring manual for self-defining autobiographical memories. *Unpublished Manuscript, Connecticut College*

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