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Using physiological measures for emotional assessment: A computer-aided tool for cognitive and behavioural therapy



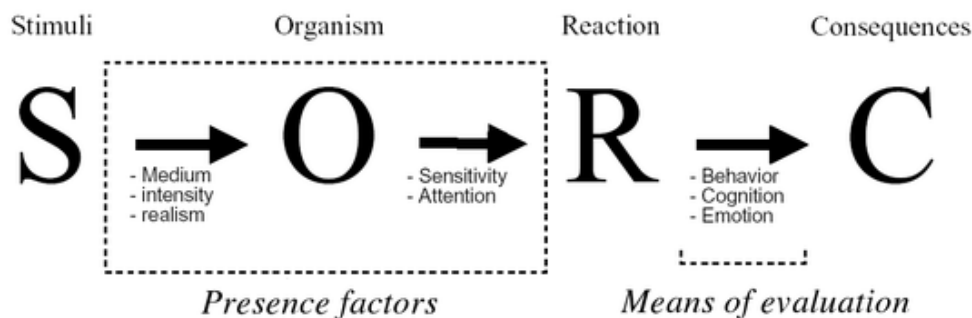
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ABSTRACT

In the context of Cognitive and Behavioural Therapies, the use of immersion technologies to replace classical exposure often improves the therapeutic process. As it is necessary to validate the efficiency of such a technique, both therapists and VR specialists need tools to monitor the impact of Virtual Reality Exposure on patients. The present study investigates two possible solutions to assess affective states from physiological measurements; automatic evaluation of the arousal and valence components of affective reactions and classification into classes of emotions. Results show that these dimensional reductions of physiological data could not lead to statistically a fine identification of affective states, but the correlations we found could be used in a biofeedback loop with the virtual environment or in combination with other cognitive and behavioural assessments tools.

)Keywords

Cognitive and Behavioural Therapy, Arousal, Valence, physiological measures, emotions, presence.)