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INTRODUCTION

- ⇒ **Positive emotions** have **health benefits** [1] and are tightly linked to **well-being** [2]
- ⇒ Critical issue : How to foster positive emotions and experiences among users?
- ⇒ **Positive technology** framework suggests technologies may improve users' subjective, psychological and social well-being [3]
 - **Virtual Reality (VR)** appears as a suitable technology for fostering positive emotions.
 - But VR's efficacy has mostly been assessed with **"subjective" measures (questionnaires)**, more rarely with **"objective" ones (e.g., physiological measures)**
- ⇒ Widespread use of **natural (i.e., nonsocial) video contents** for inducing positive emotions [4], yet social contents can have an influence on induced emotions and arousal [5]

AIM OF THE STUDY

- Investigate immersion (i.e., VR vs Screen presentation) effects on positive emotion induction
- Comparing social and nonsocial (landscape) contents influence on elicited emotions
- Confronting "subjective" and "objective" measures for assessing participants' emotional states

MAIN CONCLUSION

- The **immersive nature of VR** leads to more positive emotions and arousal on both subjective and objective levels
- Differences between video contents :
 - Nonsocial contents seem particularly efficient on a physiological level = **Natures' well-known benefits for relaxing and restoring resources** [5]
 - **Social contents** lead to an **increased** subjective and physiological arousal
- **Potential applications:** foster positive emotions through VR in more vulnerable and/or isolated users (e.g., elderly users)

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METHOD

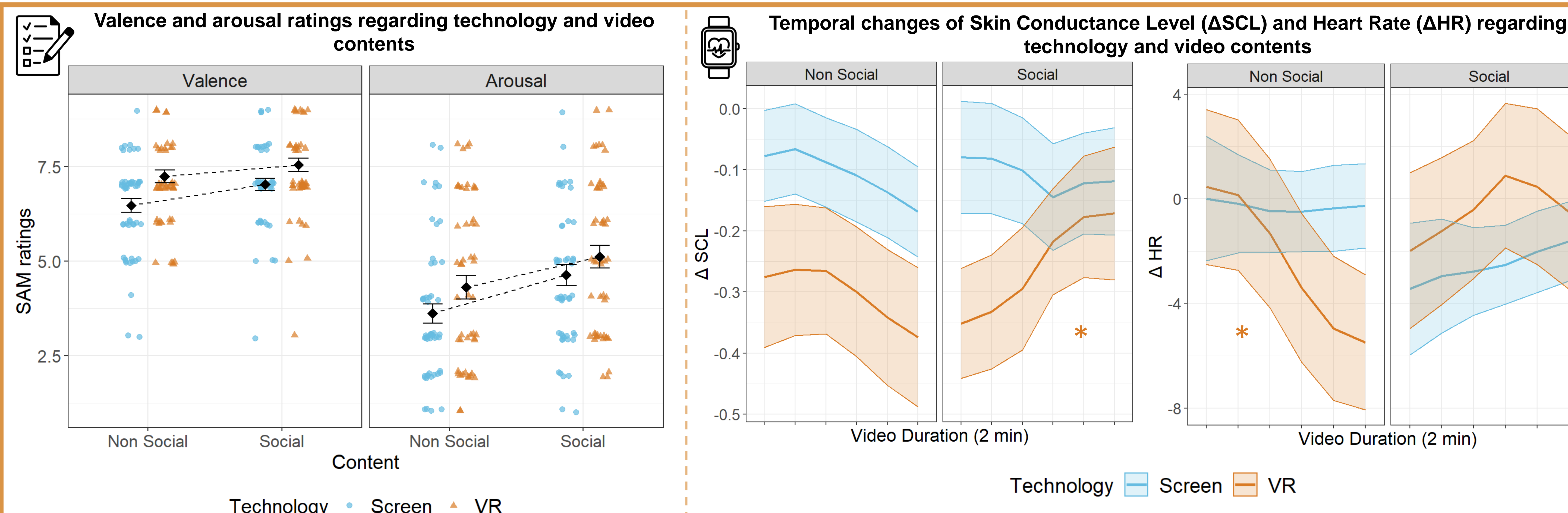
Participants : 26 healthy undergraduate students
16 women, 10 men, 23 years ± 2.6
Non-inclusion of participants having major psychiatric and/or neurological disorders (epilepsy).

Procedure



Material : 25" screen (resolution of 1920 x 1080 pixels); HMD Samsung Odyssey+ (110° Fov, resolution of 1440 x 1600 pixels); Empatica E4 wristband
Stimuli : Eight 360° videos shot with a GoPro 360° camera and a tutorial video

RESULTS



Main effect of technology : VR induced more positive emotions and arousal compared to screen presentation

Main effect of content : Social videos are perceived as more positive and arousing than nonsocial video contents

No Technology x Content interaction on valence or arousal ratings

Significant Technology x Content x Time interaction ($p < 0.01$) for ΔSCL
⇒ **SCL increase** when watching **social video contents in VR** compared to a screen

Significant Technology x Content x Time interaction ($p < 0.01$) for ΔHR
⇒ Important **HR deceleration** while watching **nonsocial contents in VR** compared to screen