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Being virtually with others makes me happy - The influence of immersion, social and non-immersion video contents on positive emotion induction

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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)

REFERENCES


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

Valence and arousal ratings regarding technology and video contents

RESULTS

Temporal changes of Skin Conductance Level (ΔSCL) and Heart Rate (ΔHR) regarding technology and video contents

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

Valence and arousal ratings regarding technology and video contents

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