The Relationship between Virtual Self Similarity and Social Anxiety

Presentation Overview

▷ Social Anxiety

▷ VR and self-representation

▷ Studies

1

Social Anxiety

Definitions and measuring instruments

Social Anxiety

Definition

Social anxiety is an intense fear of negative evaluation from others in social or performance situations.

Self-image

▷ negative self-image

▷ magnifying negative aspects

▷ past failures

Social Anxiety

PRCA-24

▷ Personal Report of Communication Apprehension

▷ composed of twenty-four statements concerning feelings about communicating with other people

SPIN

▷ Social Phobia Inventory Assessment

▷ a 17-question survey developed at Duke University that has been clinically validated as a measure of social anxiety

BFNE

▷ Brief Fear of Negative Evaluation Scale

▷ a measure of a person's tolerance for the possibility they might be judged disparagingly or hostilely by others

> **Self-consciousness is the enemy of all art, be it acting, writing, painting, or living itself, which is the greatest art of all.**
>
> –   *Ray Bradbury*

2

Virtual Reality

self-representation

Virtual Reality

▷ alternate reality

▷ transforming the appearance of one's self

▷ new avatar $\Rightarrow$ new self-representation

▷ behavioral and attitudinal shifts

Virtual Reality

Past

▷ manipulating features of the audience

▷ Virtual Reality Exposure Therapy

Present

▷ transformation of the virtual self

▷ virtual embodiment through an avatar ⇒ virtual mirror

3

Studies

Pilot study and Study 1 & 2

Pilot Study

▷ imagined virtual speech task

▷ avatar similarity preference and trait public speaking anxiety

▷ 252 participants; PRCA-24; about VR

▷ the higher social anxiety, the stronger the preference for embodying a dissimilar avatar

Study 1

▷ *self, other* & *choice*

▷ H_1. *self* - higher levels of self-perceived physiological sensations and state anxiety

▷ RQ_1. *choice* - different levels of anxiety?

▷ RQ_2. levels of self, social and spatial presence?

▷ B-FNE, Body Sensations Questionnaire & presence scale

Source: The Relationship between Virtual Self Similarity and Social Anxiety

Design and Procedure

- avatar

- three-minute speech

- anxiety before and after

Virtual Audience

Results

	Anxiety before speech	Anxiety after speech	Self Presence	Social Presence	Spatial Presence	BSQ
Self	**45.65**	**49.75**	**2.14**	**3.69**	**3.05**	**31.25**
Choice	**41.75**	**45.29**	**1.98**	**2.94**	**2.56**	**28.93**
Other	**39.85**	**42.38**	**2.29**	**3.18**	**2.82**	**27.08**

▷ *self, other & choice*

▷ larger sample size, longer speech, preparation

▷ H_1. *self* - higher levels of self-perceived physiological sensations and state anxiety

▷ RQ_1. levels of self, social and spatial presence?

▷ STAI, Body Sensations Questionnaire & presence scale

Study 2

▷ 14% anxiety reduction by BSQ in *other*

▷ yet, unchanged levels by STAI

▷ self-presence scores higher in *other*

4

Discussion

low self-presence
in both Studies

embodiment/identification
generic body, movement limitation

% of time
-    looking at mirror

Potential

negatively distorted self → understand your phobia from a different perspective → work on correcting the self image and improving confidence

Apparatus

nVisor SX111 head-mounted display (2560, 1024)
Worldviz PPT-E
Intersense3 Inertial Cube

♡

Thanks!

Any questions?

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