

# PERSONALIZATION ON PRESENCE AND PROMOTING PHYSICAL ACTIVITY

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# CAPABILITIES OF VIRTUAL REALITY

Creating engrossing world

Consequence visualization

Personalized avatar

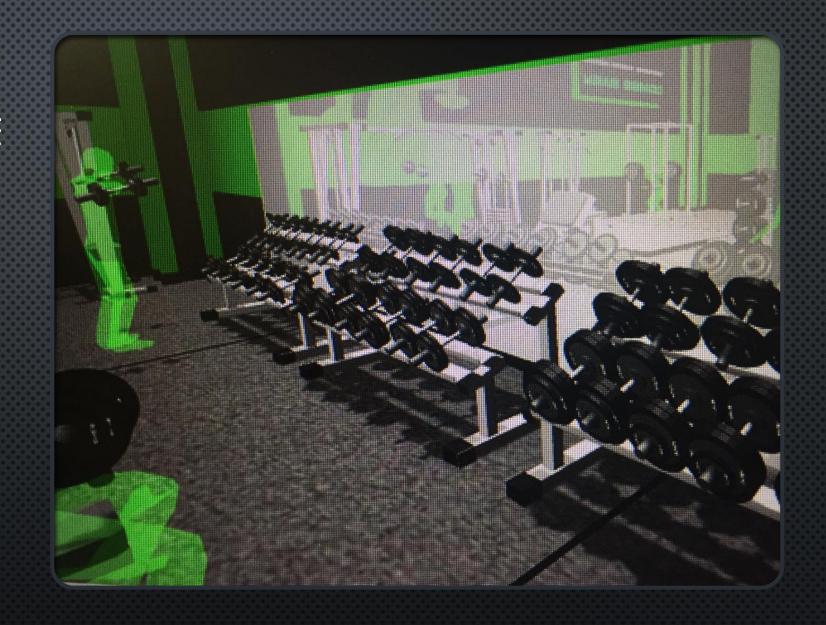
# BARRIERS TO EXERCISE

- LONG-TERM EFFECTS
- DELAYED GRATIFICATION
- Uncertain Consequences

## SENSE OF PRESENCE

# Three Dimensions of Presence (Lee, 2004)

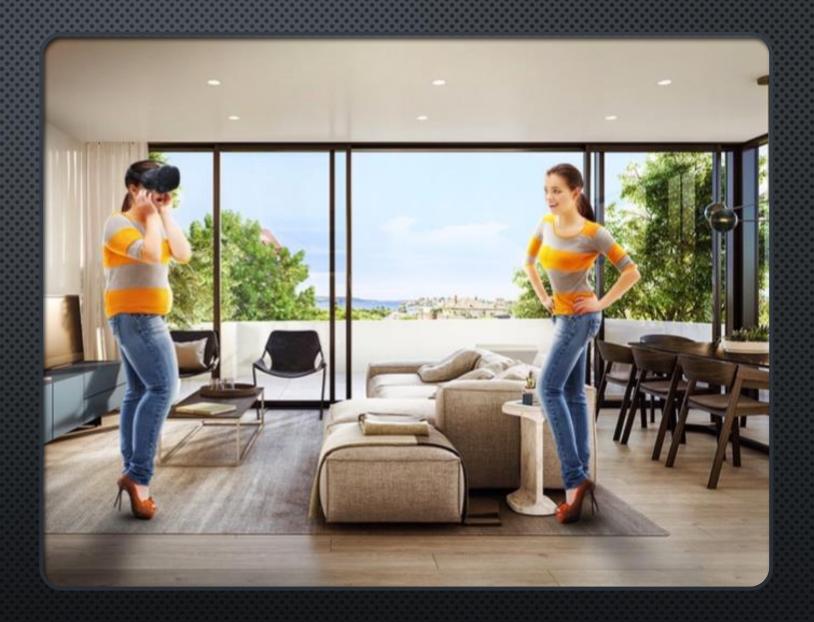
- PHYSICAL-PRESENCE
- SELF-PRESENCE
- SOCIAL-PRESENCE



# VISUALIZING THE CONSEQUENCES

 SOCIAL COGNITIVE THEORY & VICARIOUS REINFORCEMENT (BANDURA, 1986)



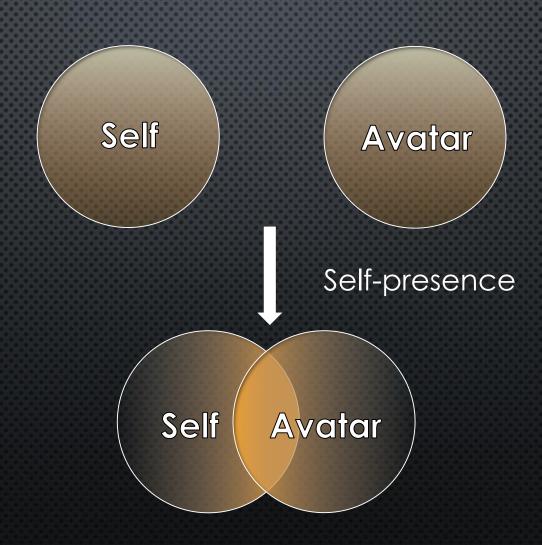


# AVATAR PERSONALIZATION

- PERCEIVED SIMILARITY
- PERCEIVED AGENCY
- SELF-PRESENCE



# **Building Connections**



# DESIGN

Condition 1 (n=15)	Condition 2 (n=14)	Condition 3 (n=15)
Personalization	No Personalization	NA
Outcome Visualization		No Outcome Visualization

#### MEASURES

- IDENTIFICATION WITH THE AVATAR
- PERCEIVED AGENCY TO MOVE IN THE VIRTUAL FITNESS CENTER
- SENSE OF PRESENCE
- Intention to Exercise in the Next Week (Plan)
- EXERCISE REPETITIONS IN THE VIRTUAL FITNESS CENTER

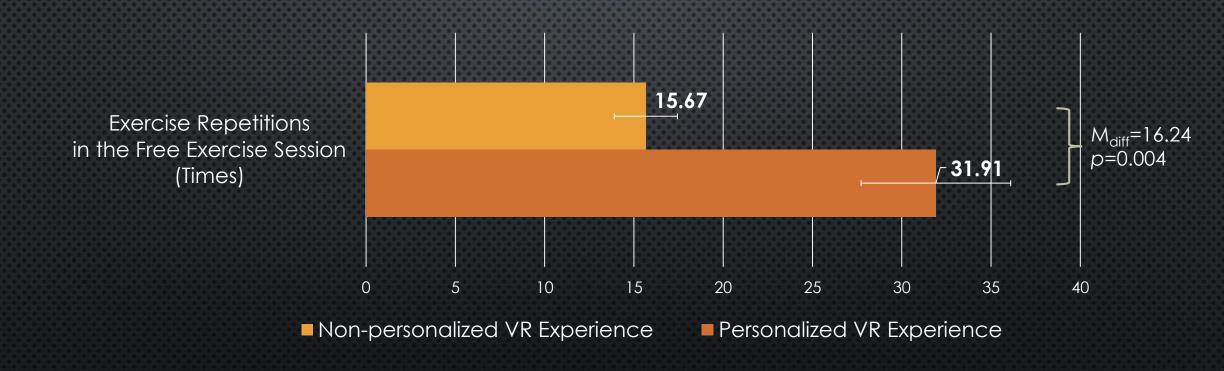
# VR Experience on Exercise Plan

Exercise Plan For The Next Week: No. of Hours Allocated To Exercise

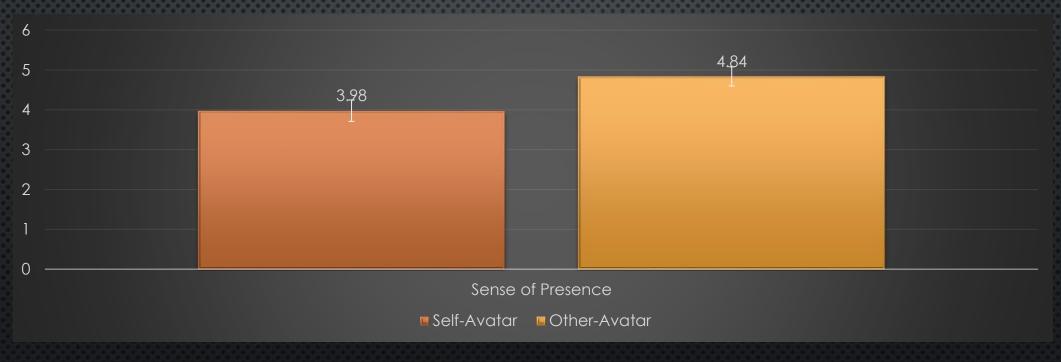


- Control Condition (Watching an Exercise Video)
- Non-personalized VR Experience
- Personalized VR Experience

#### Personalized Avatar On Exercise Behavior



## Personalized Avatar On Sense of Presence



$$F(1, 25)=5.75, p=.024, \eta_p^2=.19$$