

FINAL PROJECT VISUAL THINKING AND COMPOSITION

Virtual Superheroes: Using Superpowers in Virtual Reality to Encourage Prosocial Behavior

Rosenberg, R. S., Baughman, S. L., & Bailenson, J. N. (2013). Virtual superheroes:
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FAY VAN TUSSENBROEK
FAYVANTUS@HOTMAIL.COM
SNR. 2046081

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Instructor: Neil Cohn,
neilcohn@visuallanguagelab.com,
www.visuallanguagelab.com

VR

When you give people an avatar in Virtual Reality they can transfer themselves into their avatar..



Even when the avatar is different from themselves...

They can feel embodiment over the avatar.

Hey that's me!



Previous studies showed people tend to behave like their avatar because they feel like they have become the avatar.



(Hershfield et al., 2011)

The avatar can influence....

behaviour in the real world



(Fox & Bailenson, 2009)

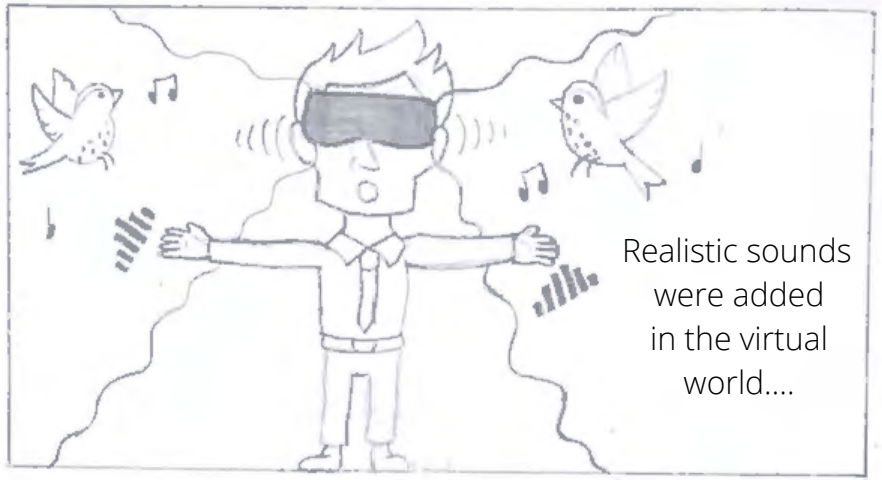
VR makes the impossible possible!



That's why some researchers once asked themselves: 'can we make people more helpful in the real world by letting participants feel like they are a superhero who can fly in VR?'

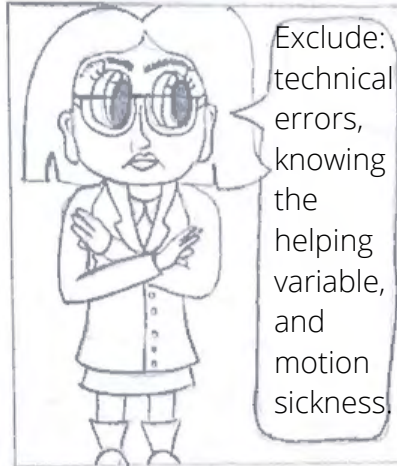


I'm going to spare you the technical details but this is what we need!



Realistic sounds were added in the virtual world....

The floor underneath could shake.



Exclude: technical errors, knowing the helping variable, and motion sickness.

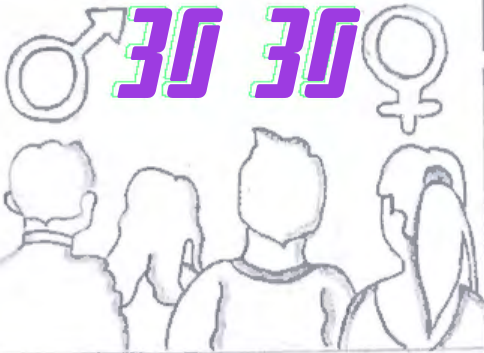
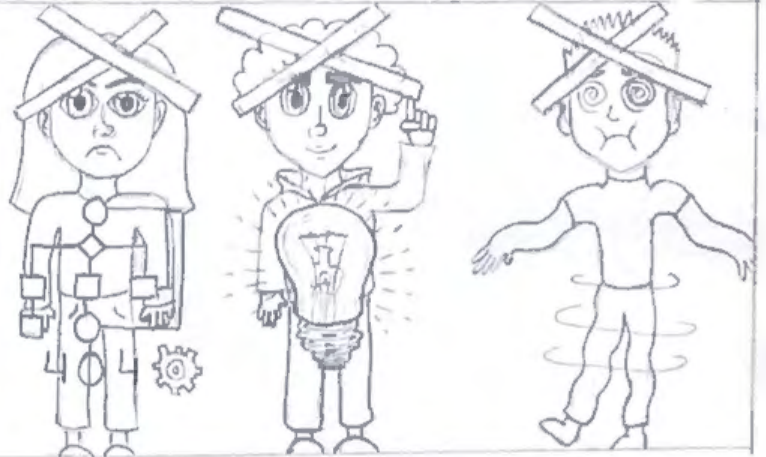
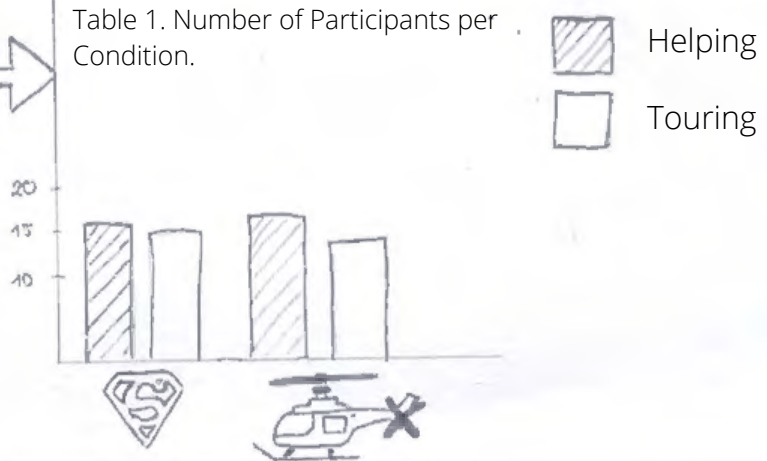
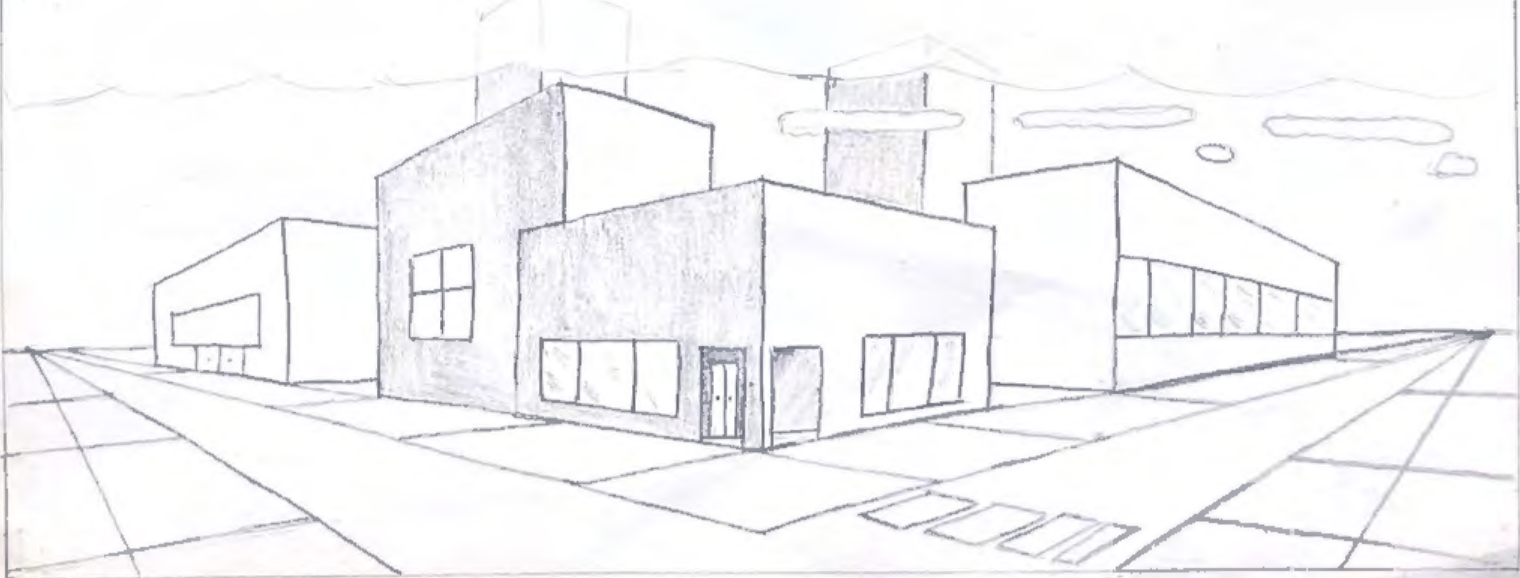


Table 1. Number of Participants per Condition.



A virtual city was designed. It was made foggy to make sure the participants couldn't fly too high above the buildings to see the ground. All participants were told that an earthquake necessitated the evacuation of a city in order to explain the lack of people.



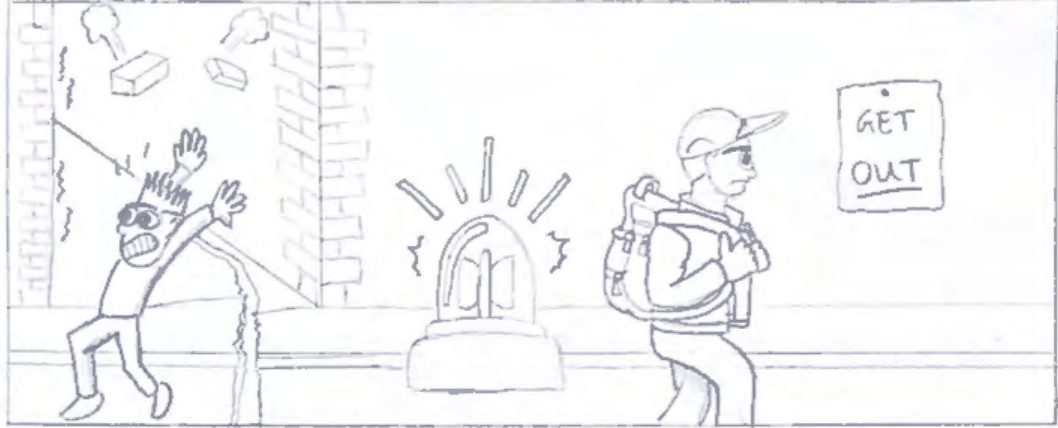
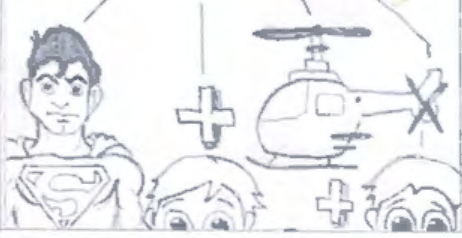
3 STAGES

The helping conditions got the following instructions: there has been an earthquake warning and the city has been evacuated.



STAGE 1

4 conditions



Is your child still there?



The child is diabetic and will go into shock without insulin.

You have a vial of insulin in your pocket. This can save the child's life! Your task is to fly through the city to find the child and deliver it.



The superpower helping condition was told to lift their arms off the ground and begin their search.



The helicopter helping condition roughly got the same instructions as the superman helping.



The superpower touring condition was told to fly through a virtual city.



The helicopter touring condition was told to fly through a virtual city.



In the helping conditions, participants had to call out when they found the child.



Yay you saved

the child!

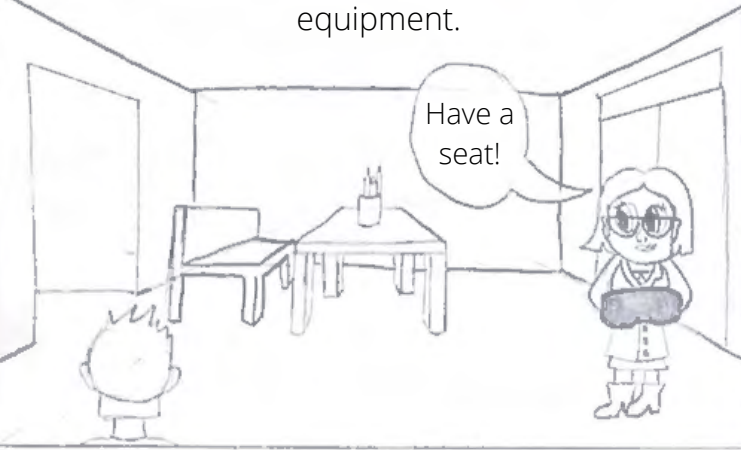
STAGE 2



We're going to measure the behavioural dependent variables using this...



The experimenter puts away the equipment.



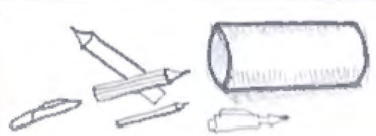
The experimenter purposely knocks over a cup of 15 pens.



She waits

5

seconds



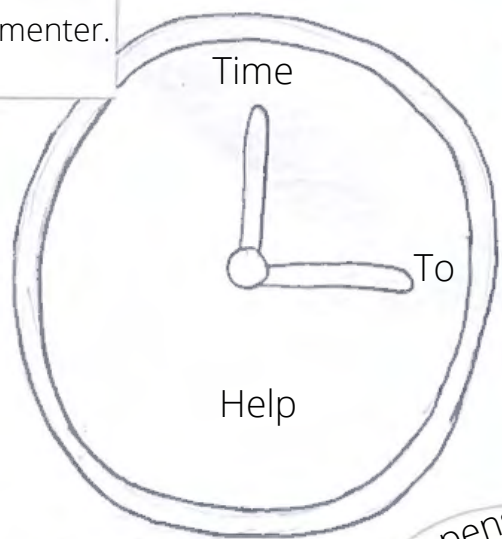
Then she starts picking up the pens 1 by 1.



I must give the participant time to help. However...

It could be that some participants

won't help the experimenter.



Number of pens

FINAL STAGE

3

RESULTS



Survey



Motion Sickness



Environmental Presence



Intention to Help



Purpose of the Experiment

The flying participants were quicker to help than helicopter participants. Flying participants also picked up more pens than helicopter riders.



There are various explanations

for these results...



Hmmm... because the superpower participants were given a superhuman ability, flying, they became more heroic and helping?



Active agents?

More presence, it felt more real?



Passive agents?

Less presence, it felt less real?



Unfortunately, the helping condition did not make a difference. Maybe the experience was not vivid and immersive enough?



There were 6 participants who did not help at all. They were all in the helicopter condition.



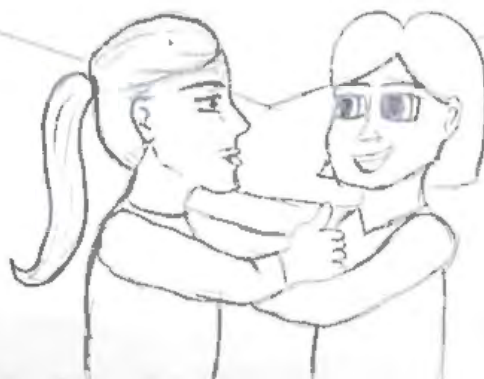
However, most of the participants helped: ceiling effect!



What does this mean?



LEADS
TO
GREATER
HELPING
BEHAVIOUR



Let me
help you!

IN
THE
REAL WORLD!