



Virtual Reality and You: Psychological Travel via Avatars

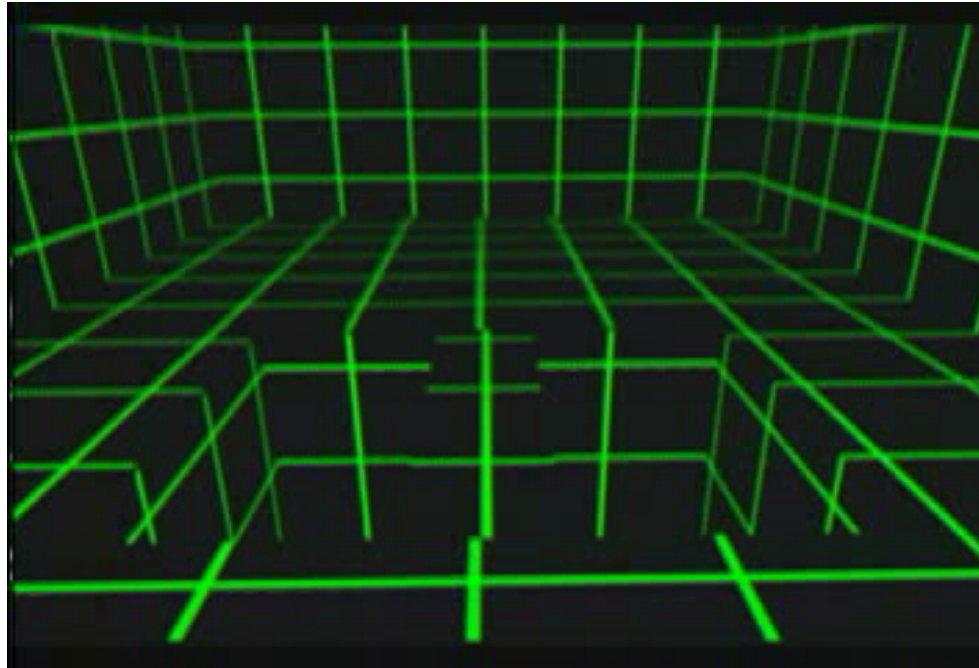
Jim Blascovich

Psychological & Brain Sciences

Research Center for Virtual Environments

And Behavior

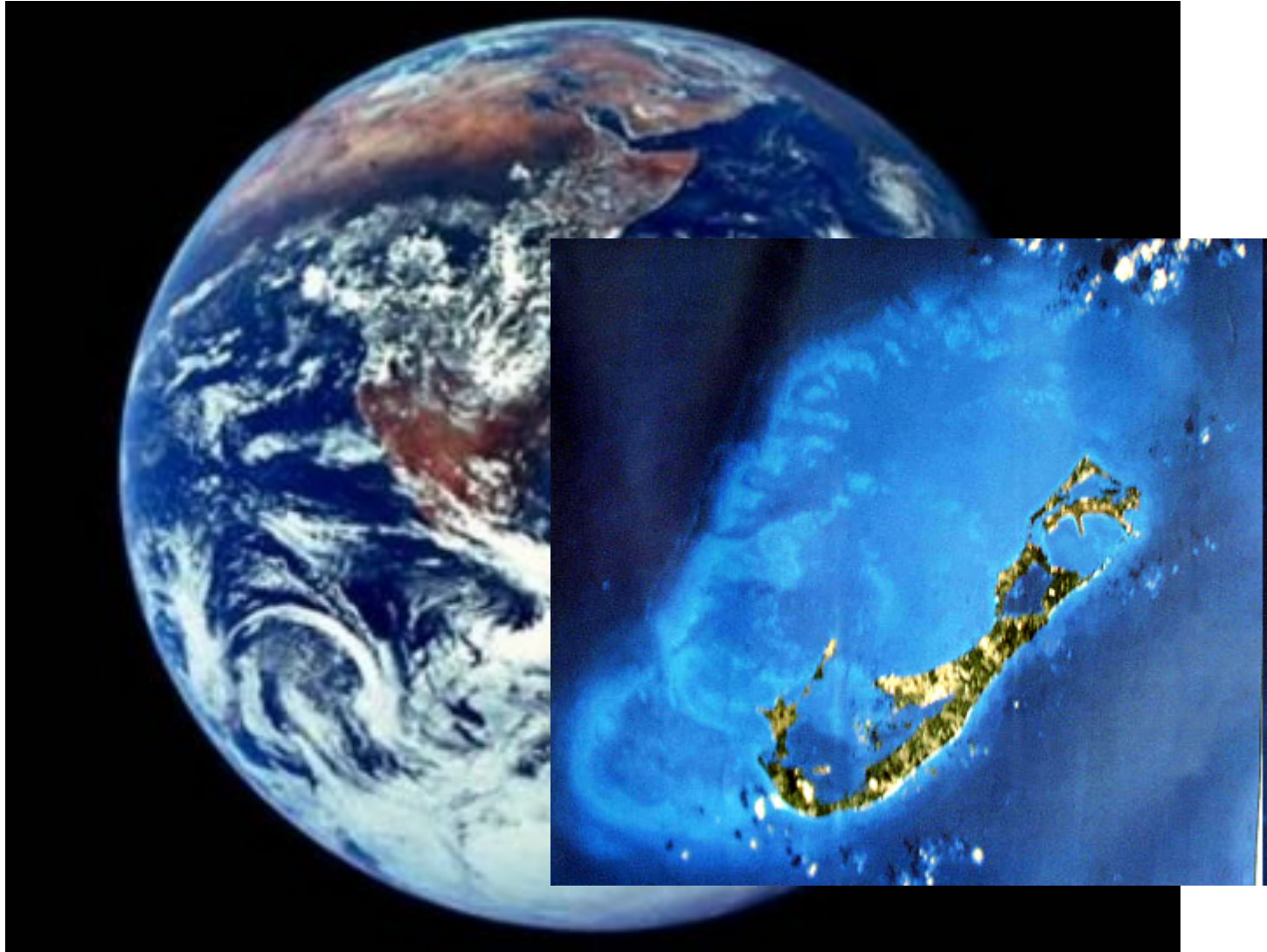




Overview

- About Reality
- Technology
- Experiments
- How it Works
- Scientific Value

The “Real” World



A “Virtual” World



Are both worlds real?

YES!

Are both worlds virtual?

YES!

Not everyone sees the same
physical world.



People see things that aren't there.

Not everyone sees the same
physical world.

We all see things that are not there.

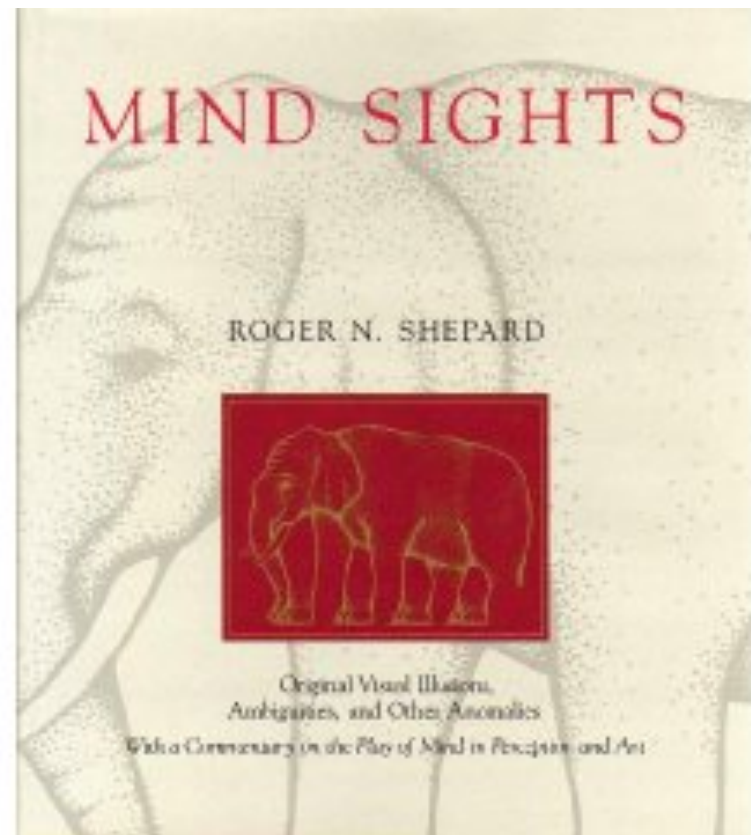
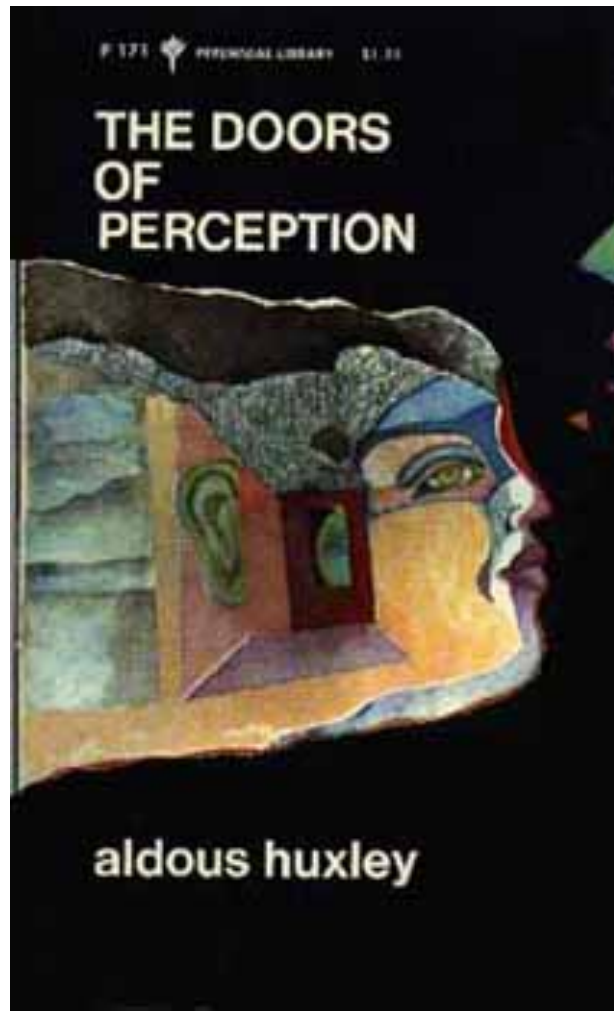
We all see things that can not be.

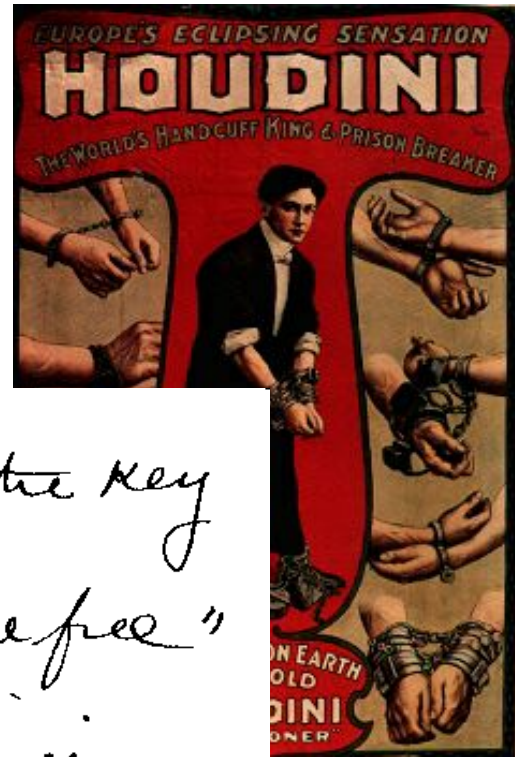
We can not see things that are
there.

We right things.



George Stratton

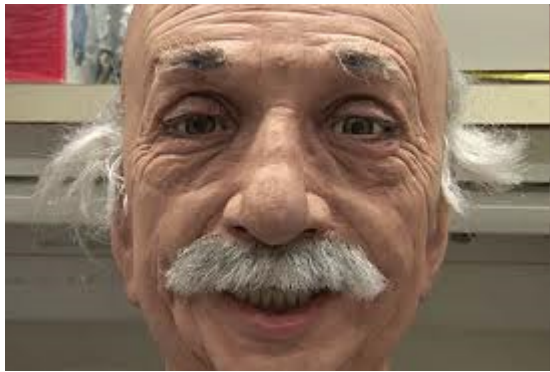




'my brain is the key
that sets me free''

Houdini

“Psychological Relativity”



Relativity

Time

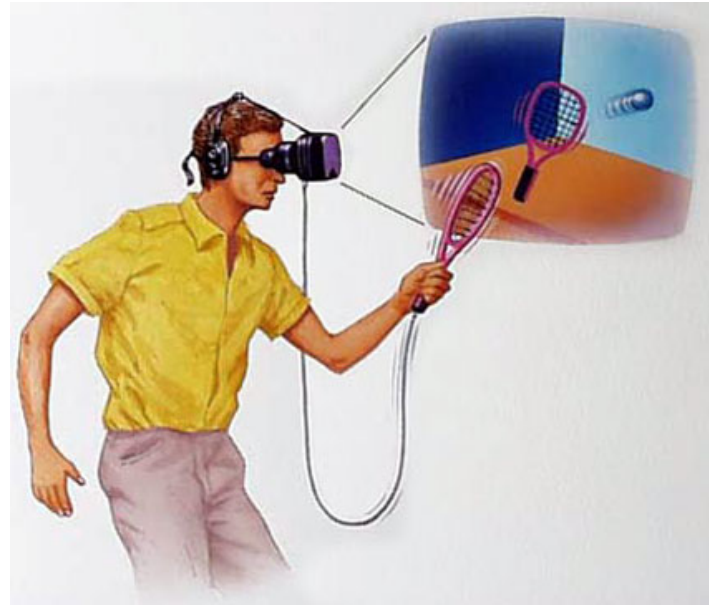
Motion

Space

Psychological Relativity



Grounded Reality



Virtual Reality

Virtual/Grounded Reality Theme



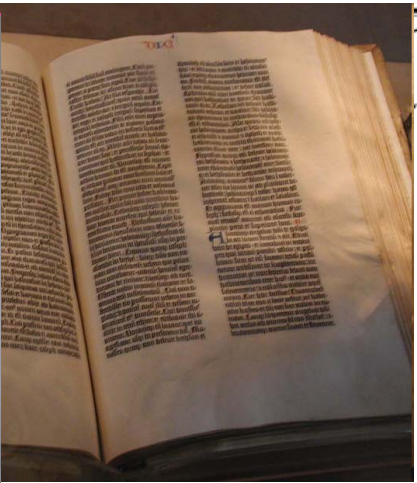
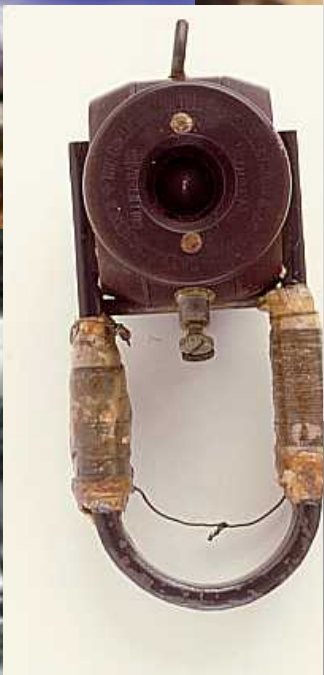
Tools for Immersion

Exogenous and Endogenous

Virtual Reality Technology

- Does not refer to any specific technology.





ales.



LSD Trip



RX

GLAXOSMITHKLINE



25 mg



50 mg



100 mg



200 mg

Thorazine®
(chlorpromazine HCl)

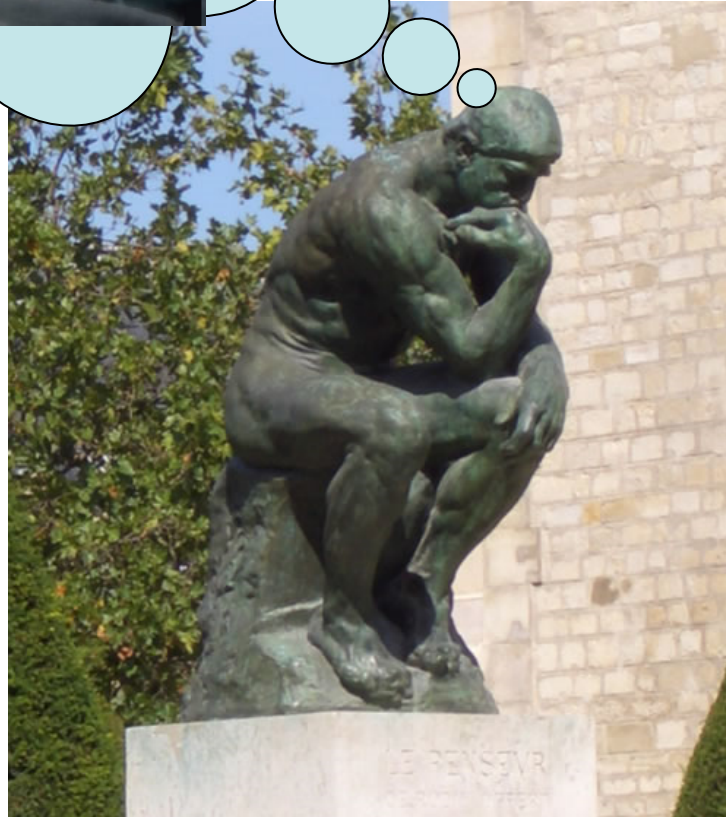
Endogenous Tools

*'my brain is the key
that sets me free'*

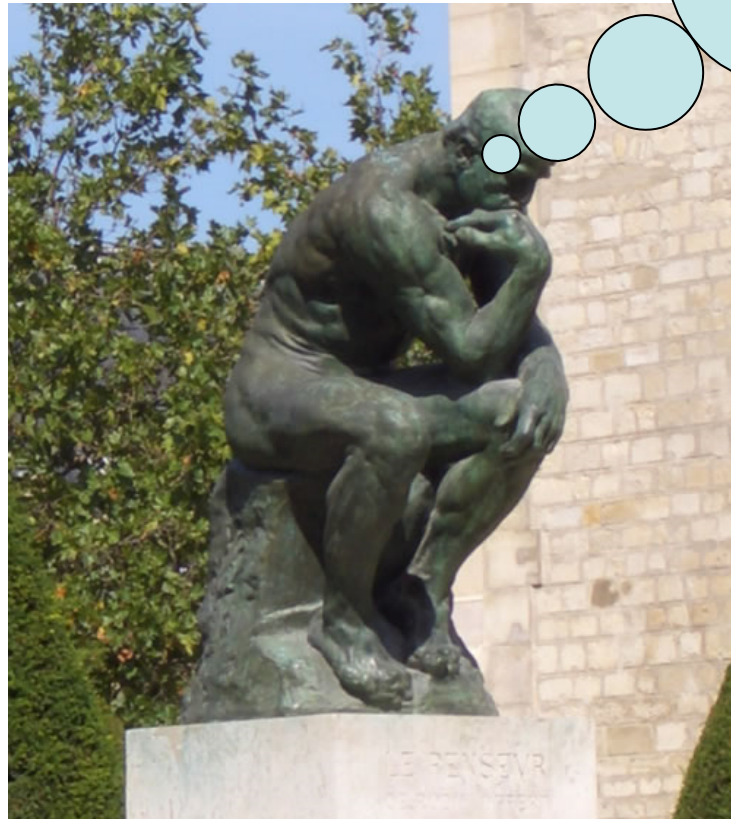
Houdini



Dreams



Daydreams



In sum

- Virtual and grounded reality are not clearly differentiated by humans.
- Reality is a state of mind involving the constant inputs of both grounded and virtual reality.
- Endogenous and exogenous mechanisms operate to facilitate immersive virtual experiences.

Experiments

What did social psychology's pioneers,
have to say about reality?

Gordon Allport



“...the actual, imagined, and implied presence of others”

Kurt Lewin



*Principles of Topological
Psychology*

“the person in the situation”



Digital “Immersive” VR System



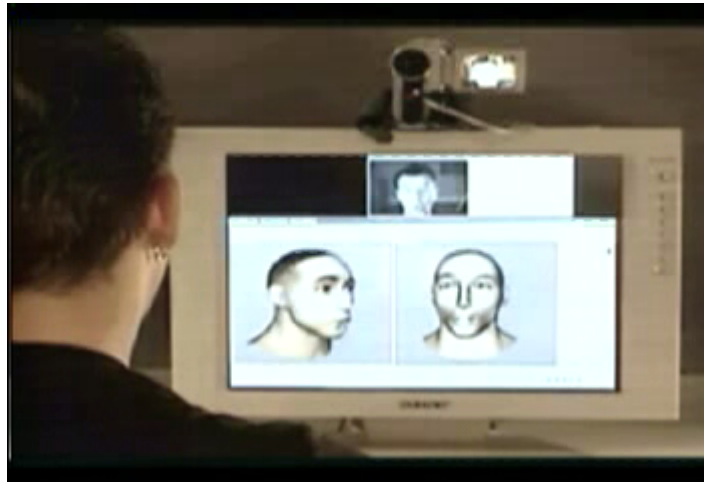
Body Tracking



KINECT
for Xbox 360

RECHARGE

Face Tracking



Three Studies

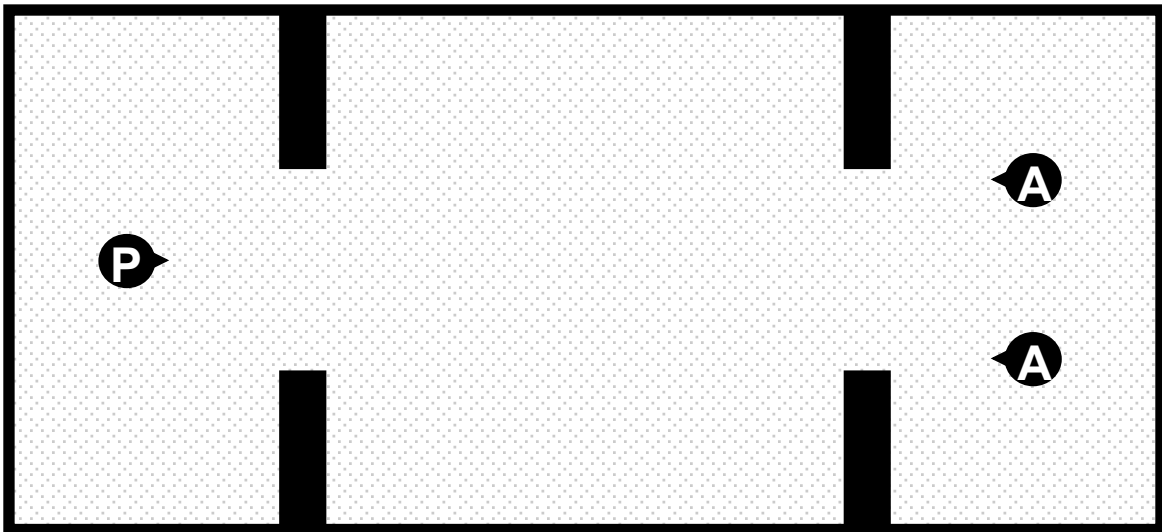
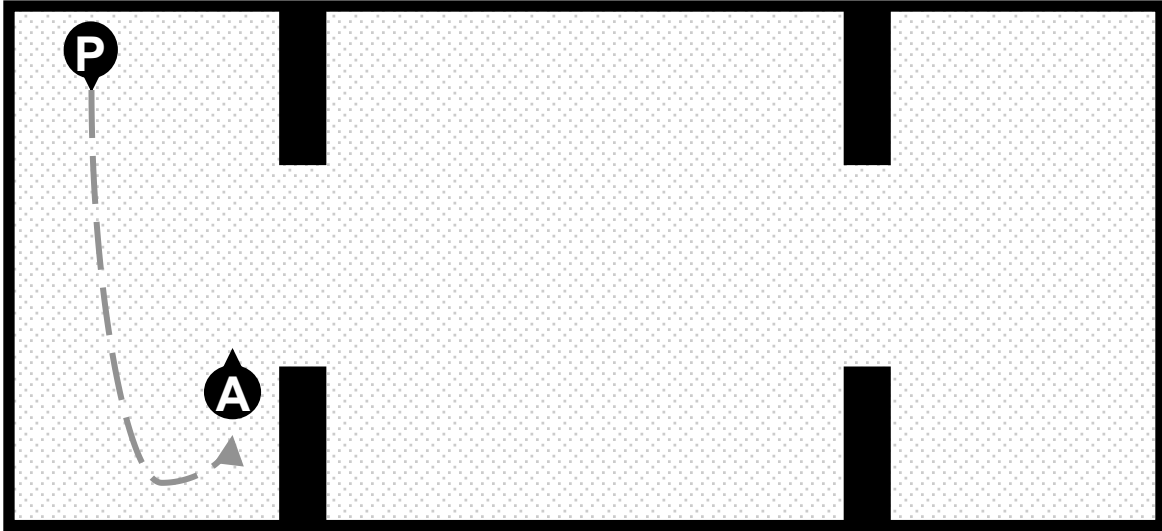
- “Shoot ‘em up!”
- “Consciousness and Stigma”
- “Monkey see, monkey do.”

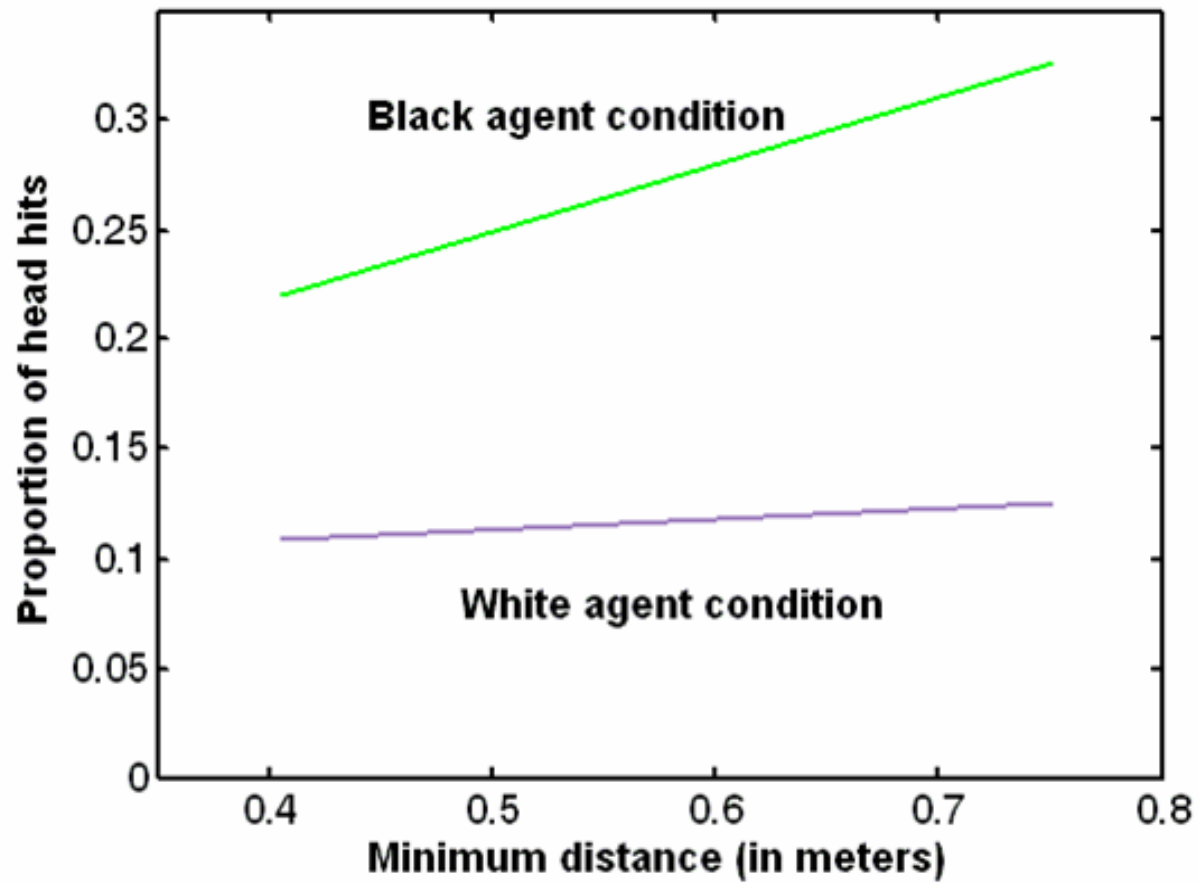
Shoot 'em up!

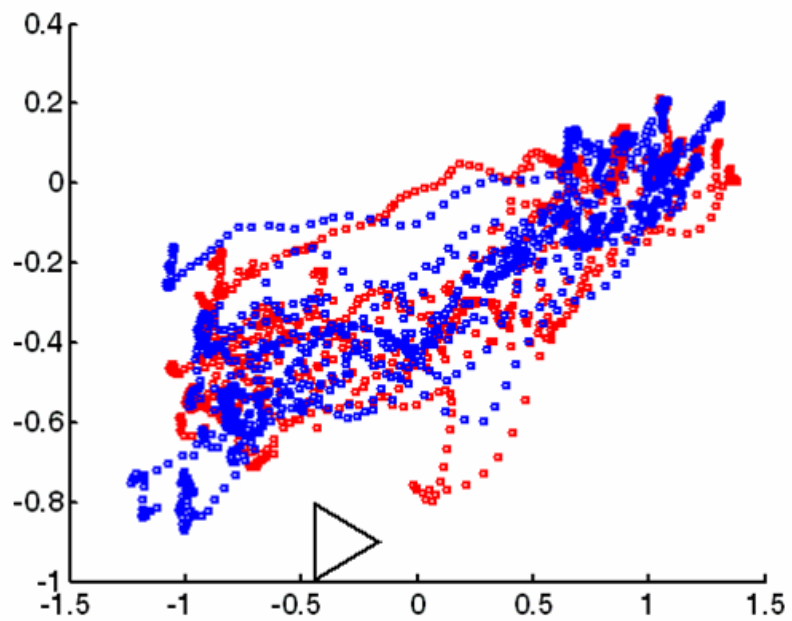
McCall, Blascovich, Young & Persky, 2008



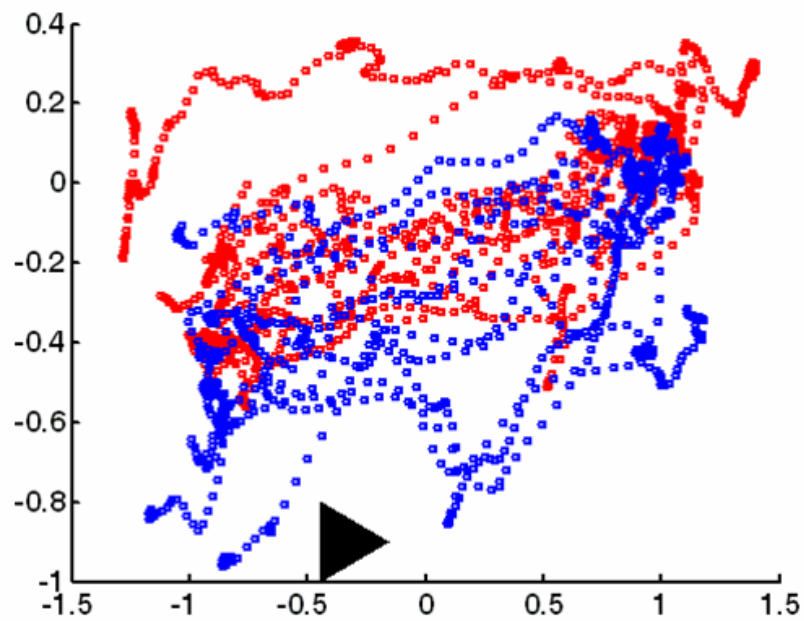








Anglo-American



African American

Consciousness & Stigma

Blascovich, in press

The simple problem

- Unconscious
- Conscious
- metaconscious



Virtual Reality

Stigma

No Stigma

Stigma

Grounded
Reality

No
Stigma

Results

- During the first minute of the interaction, participants were threatened only if the person represented by the avatar was stigmatized.
- By the fourth minute, participants were threatened only if the avatar was stigmatized.

Mimicry



A General Model of Social Influence

There is nothing so practical as a good theory.

(Lewin)

Communicative Realism

High

Low

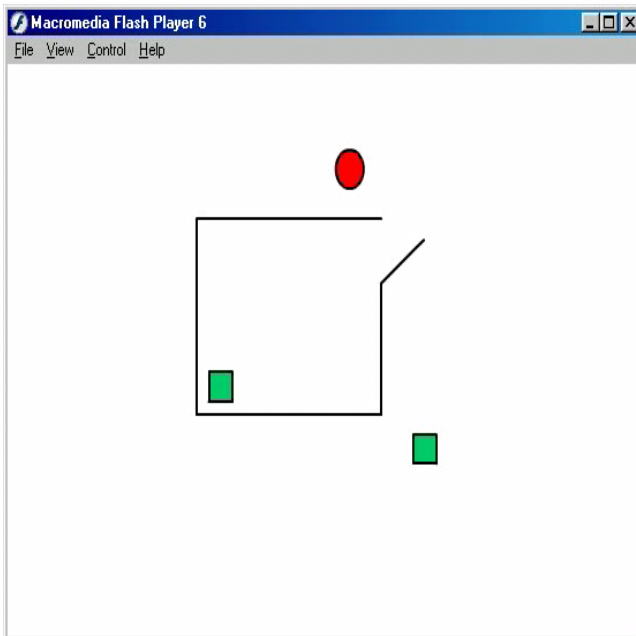


Observable (manifest) Realism Variables

- Movements
- Anthropometric
- Photographic

Manifest Realism Variables

Movement



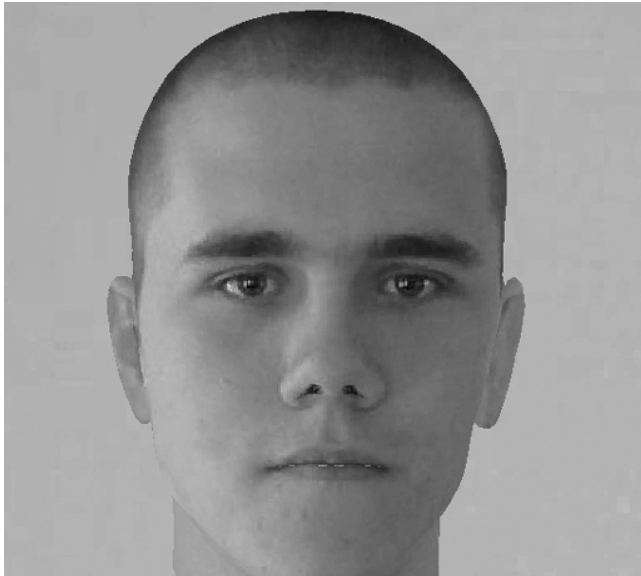
Anthropometric



Photographic



<http://www.youtube.com/watch?v=sZBKer6PMtM&feature=related>



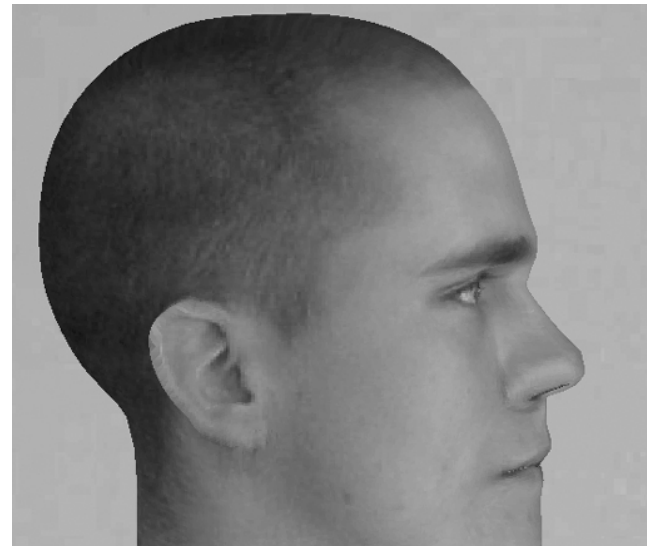
A



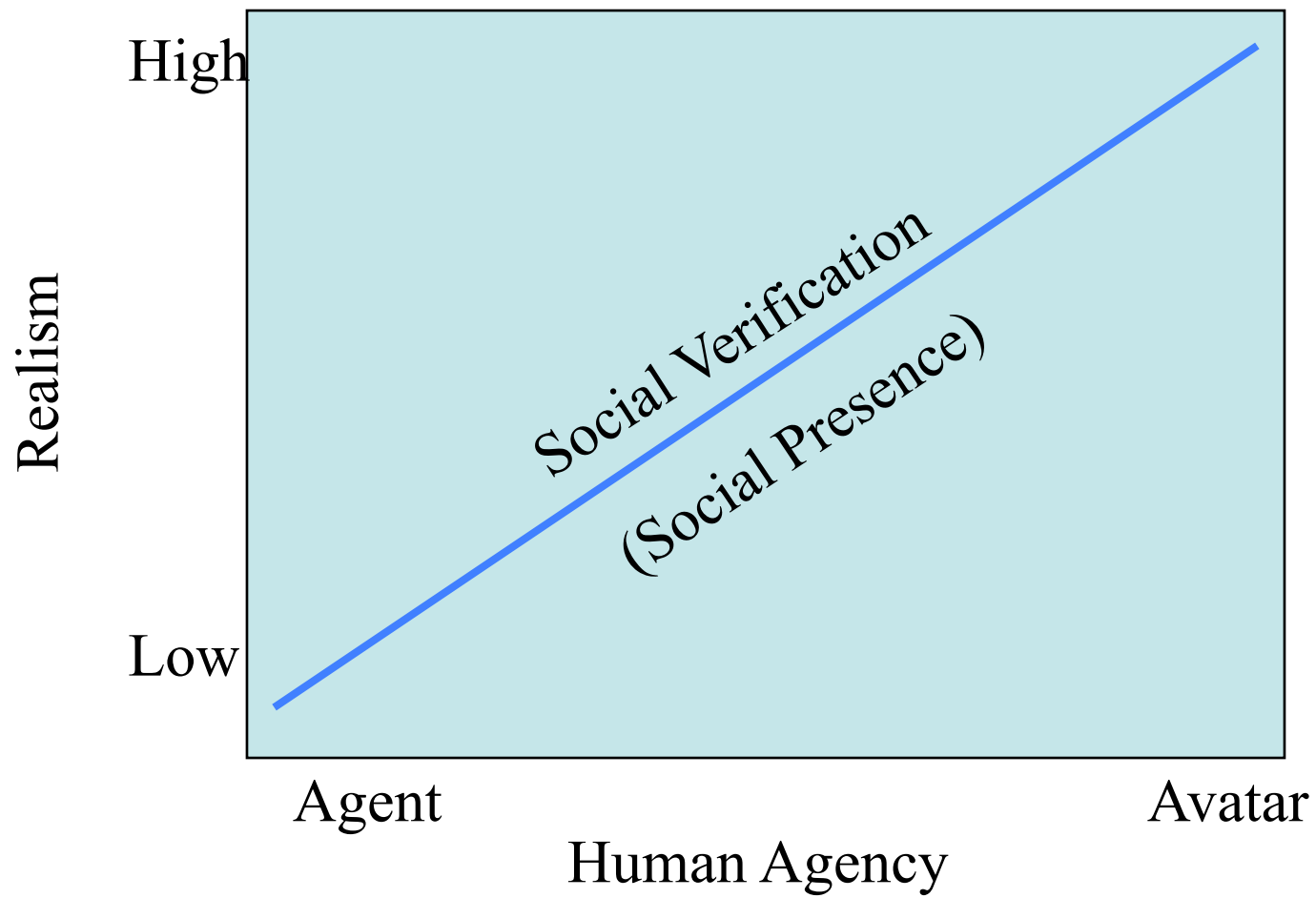
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C

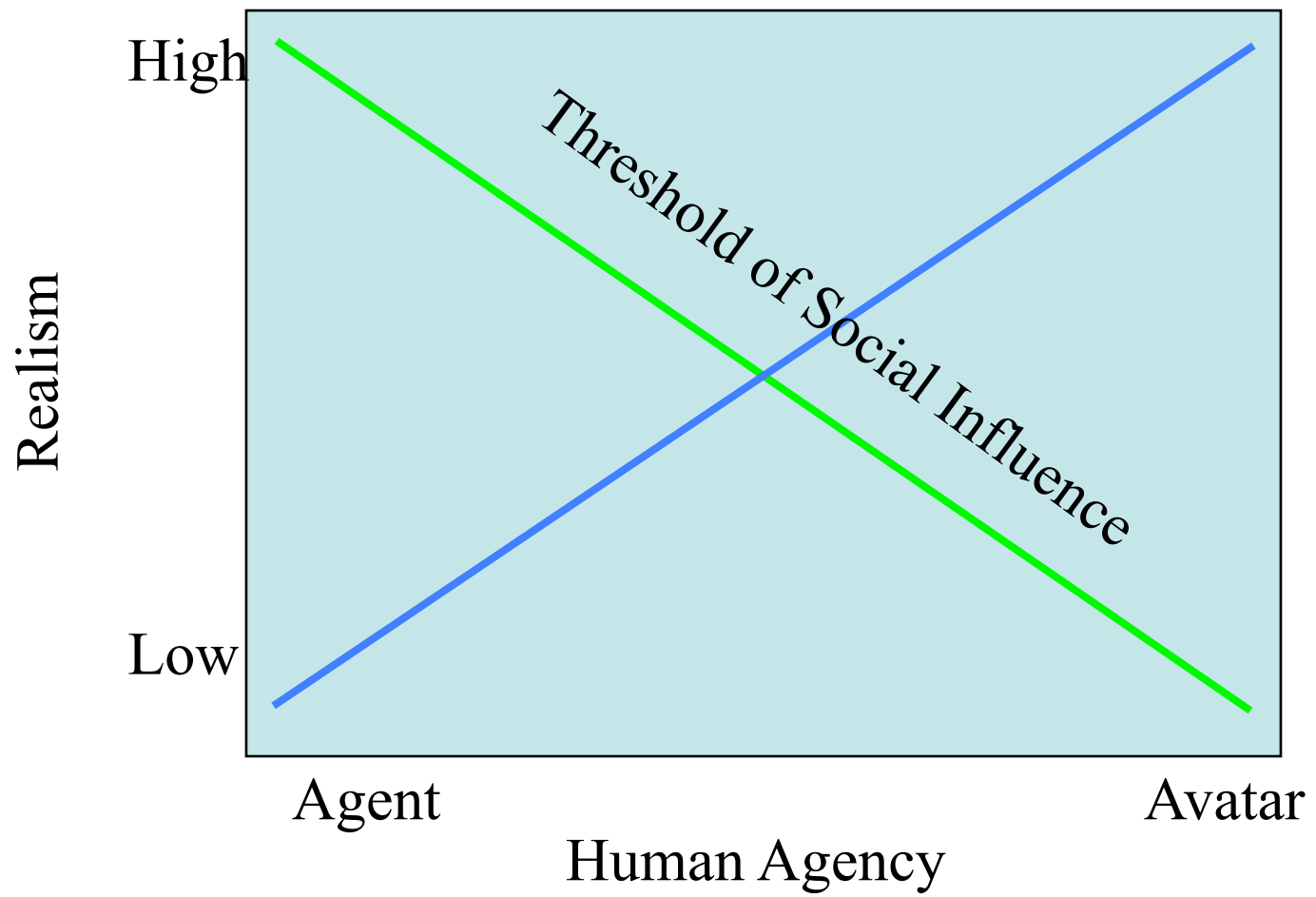


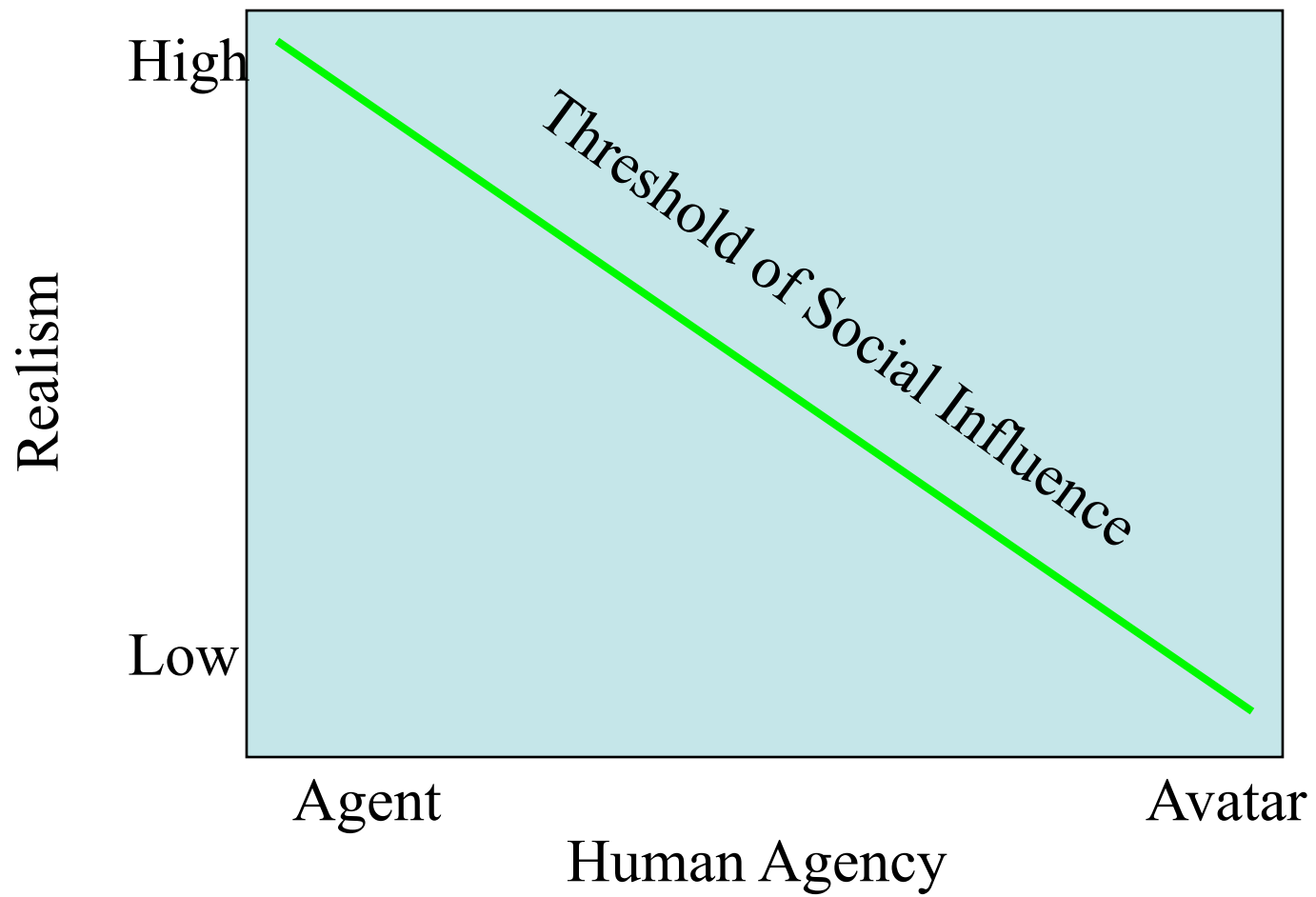
D



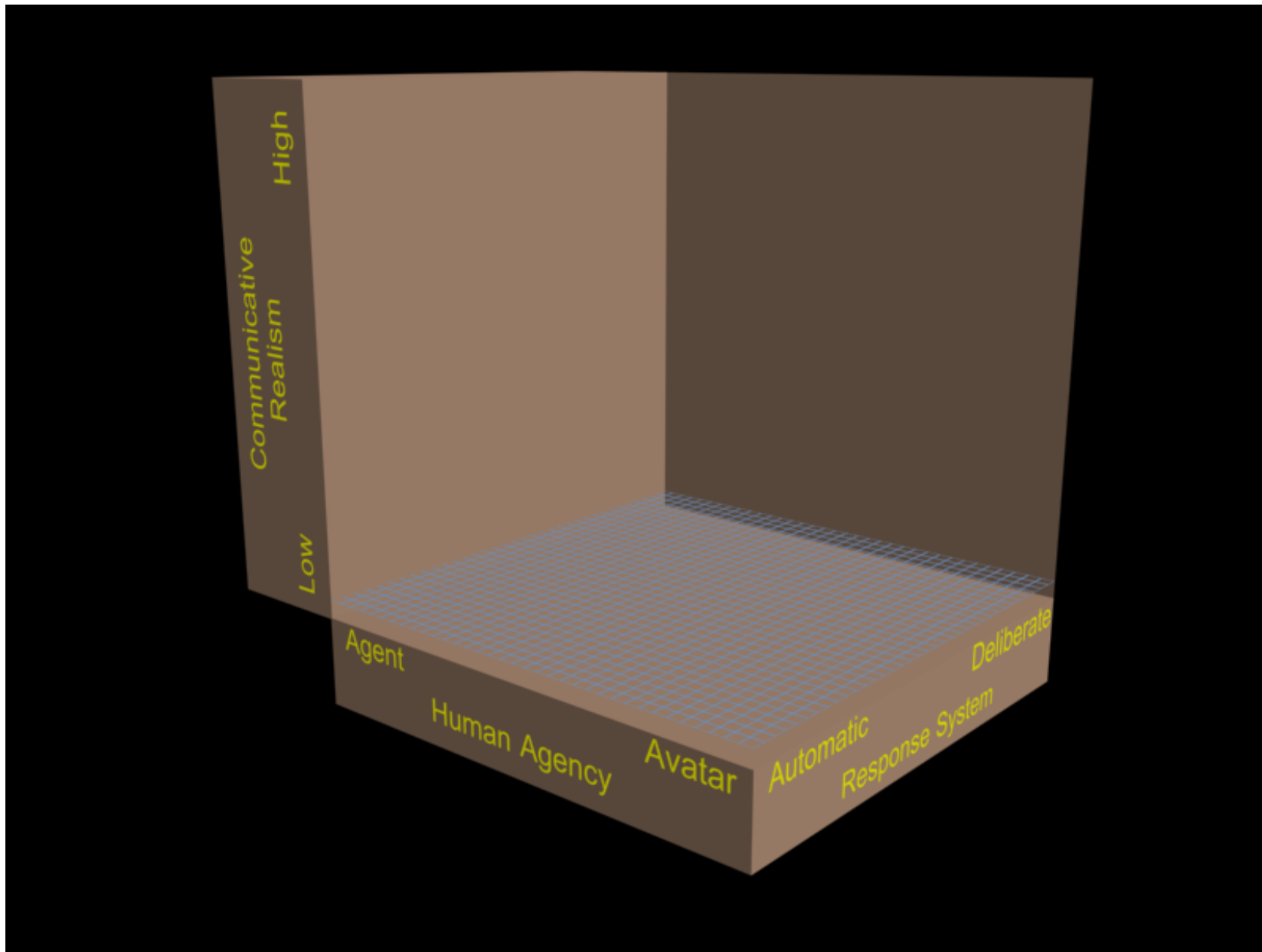
Social Verification

- *Social verification* - the extent to which participants in virtual groups experience interactions with virtual others in ways that verify that they are engaging in social interaction

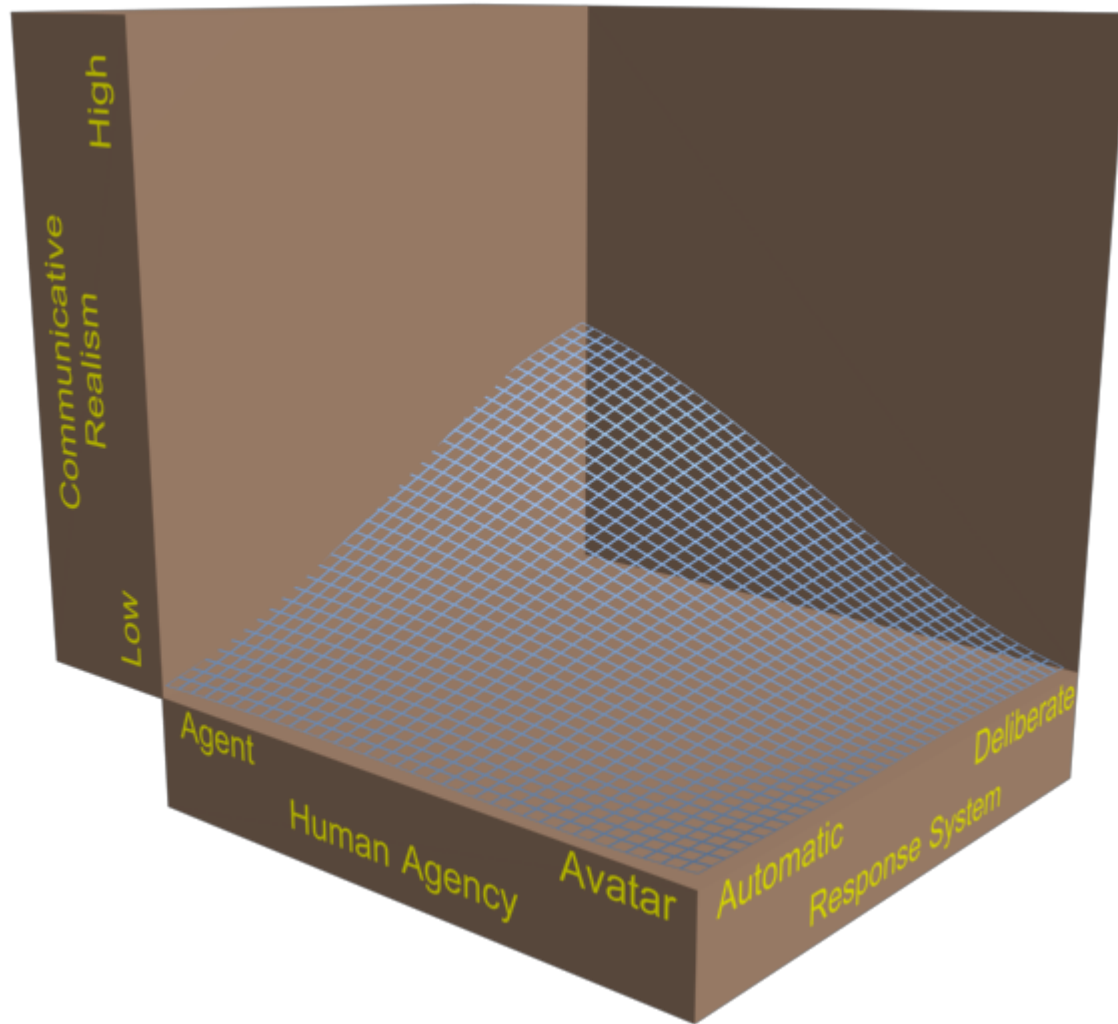




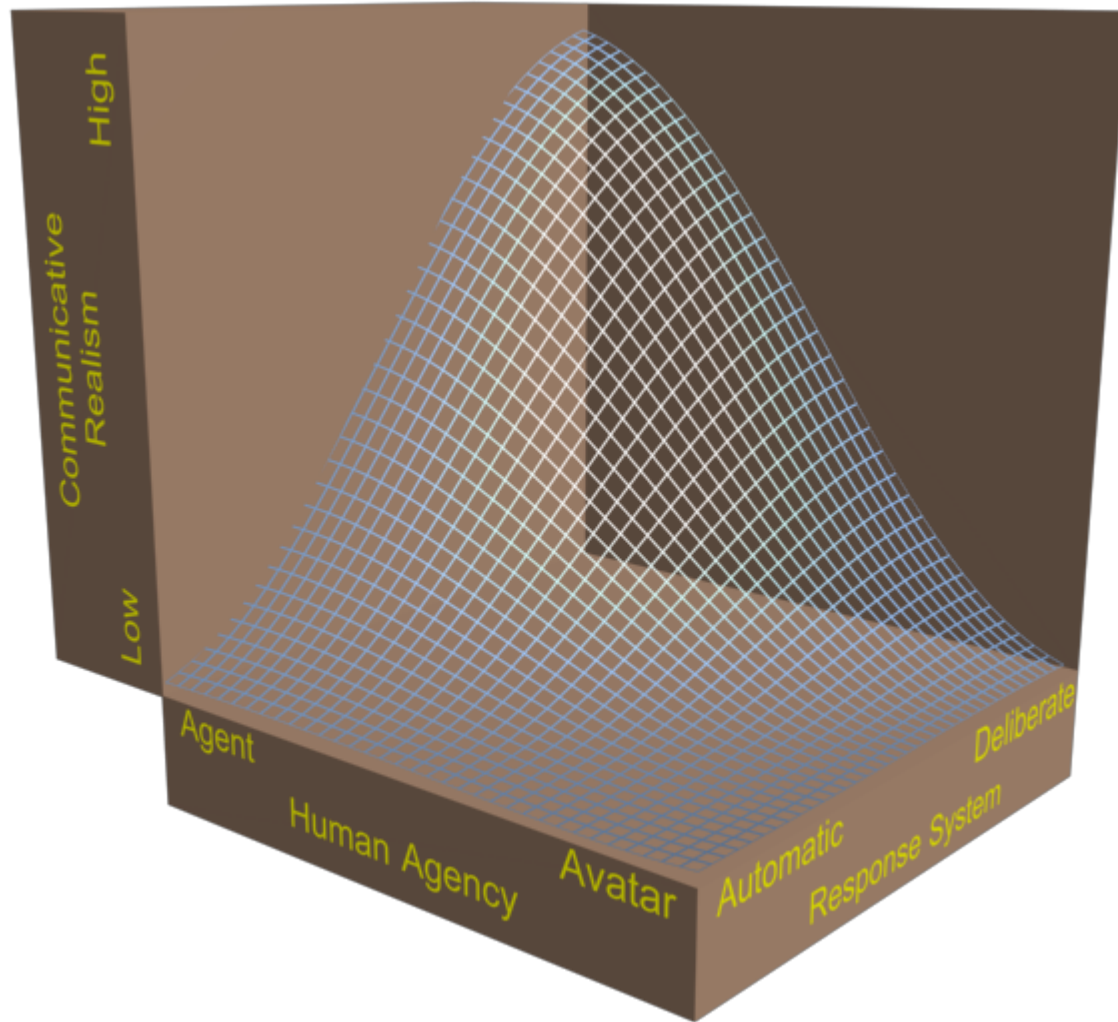
- Self-Relevance of the Context
- Response System Level



Low Self-Relevant Context



Moderately Self-Relevant Context

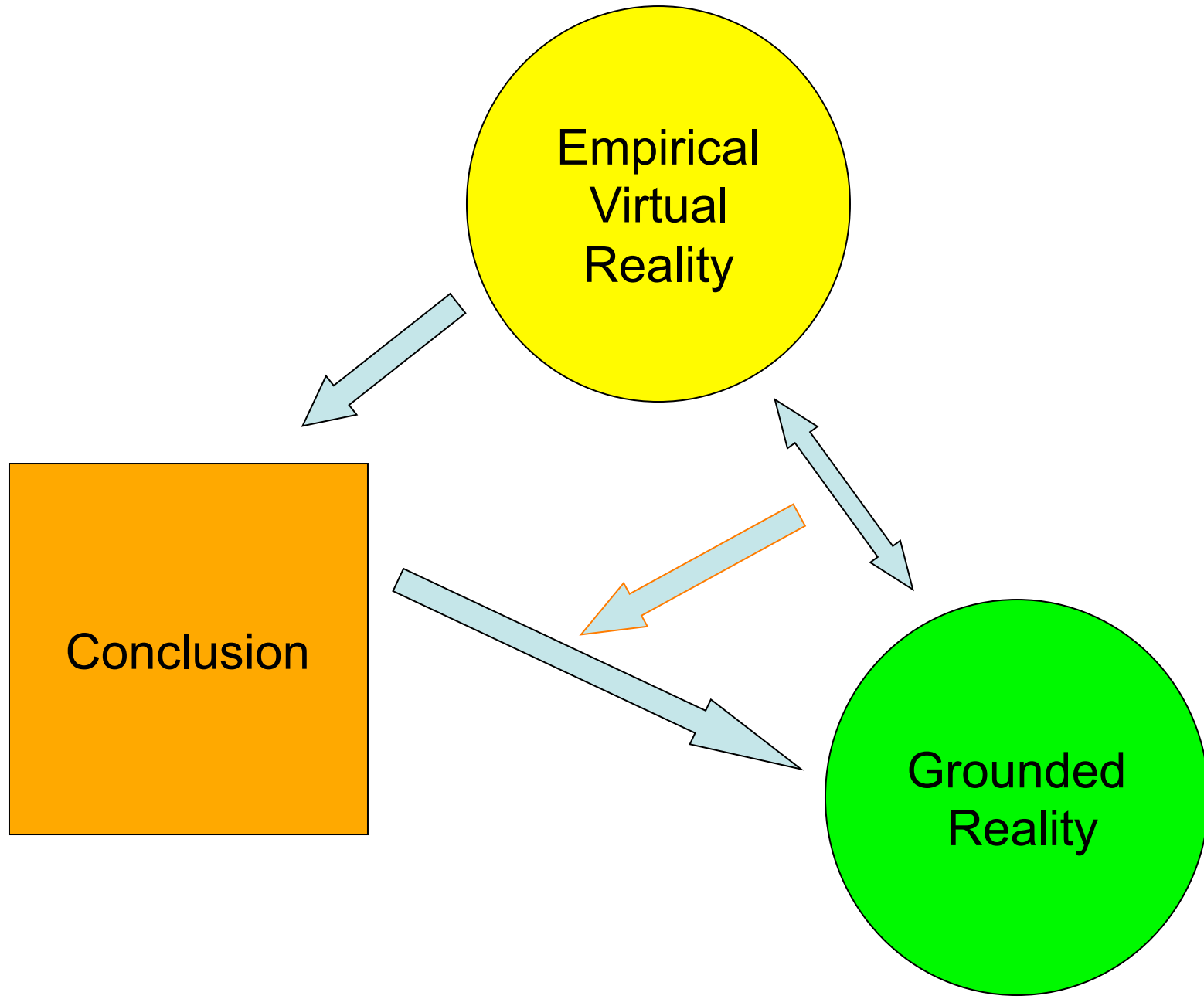


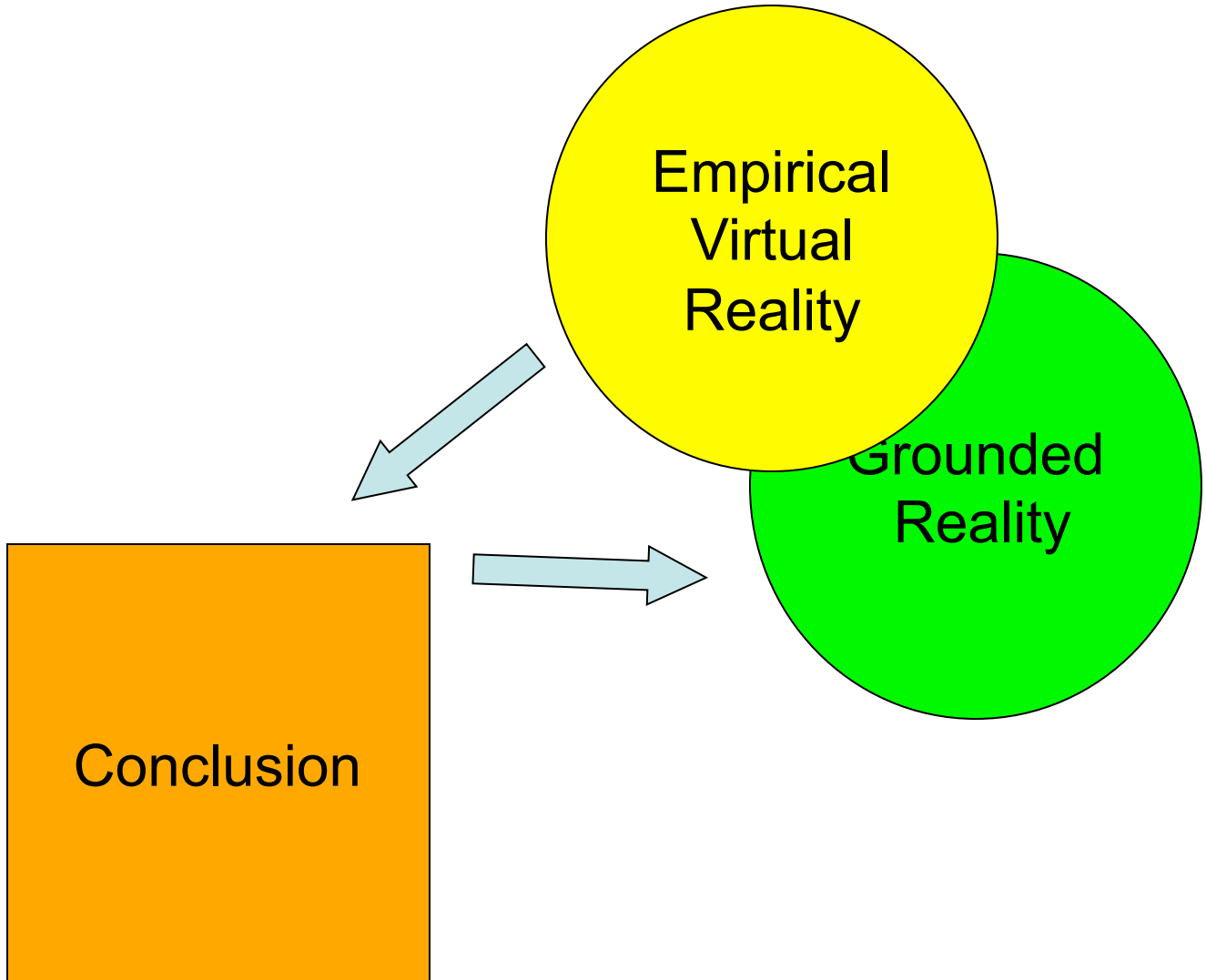
High Self-Relevant Context

Scientific Value

Recent Data

- 300+ million websites
- 30+ billion web pages
- 2 billion users





Thank you!