

# The effect of the appearance of our self-representation in a virtual world on our behavior: a survey



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In a virtual world, the perceptual illusion that an alternate virtual body is our own, is called body ownership. It comes from the Rubber Hand Illusion.

## THE RUBBER HAND ILLUSION



<http://www.thefrogwhocroakedblue.com/includes/fig-6.jpg>

An experiment which makes people feel that a rubber hand is their own by putting it on a table in front of them while stroking it in the same way as their real hand. [1]

## THE PROTEUS EFFECT

As technology is evolving, we are able to create and customize our virtual representations. As our virtual representation changes, so as our behavior and this is explained through the Proteus Effect, a theory which states that the personality associated with the digital representation influences participants' actual real-time behavior. [2]

A study investigated the influence of attractiveness and height in social behaviour.

Participants assigned to more attractive avatars were more intimate with confederates in a self-disclosure and interpersonal distance task than participants assigned to less attractive avatars.

Participants assigned taller avatars behaved more confidently in a negotiation task than participants assigned shorter avatars. [2]

Embodiment of light-skinned participants in a dark-skinned virtual body significantly reduced implicit racial bias against dark-skinned people in contrast to embodiment in light-skinned, purple-skinned or with no virtual body. [4]



## CONCLUSION

Through VR technology, new research opportunities arise in the sectors of body representation and how a person perceives the virtual body he feels he owns.

The investigation of the psychological, behavioral and attitudinal consequences of such body transformations remains an interesting problem with much to be discovered.

## REFERENCES

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Caucasian people played a West-African Djembe hand drum while immersed in virtual reality with a virtual body substituting their own.

Those with the Casual Dark-Skinned representation showed significant increases in their movement patterns for drumming compared with those embodied in the Formal Light-Skinned body.

The stronger the illusion of body ownership in the Casual Dark-Skinned condition, the greater this behavioral change. [3]



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