

COGNITIVE PSYCHOLOGY WITH PROFESSOR MARKUS BINDEMANN

TALKING POINTS

KNOWLEDGE

1. What is face-identity matching?

COMPREHENSION

2. How can impostors fool passport controllers without using a forged passport?
3. Why does a VR avatar have a different psychological effect than a photograph?

APPLICATION

4. How could the findings from Markus' passport control experiment be applied to a real passport control queue?
5. Can you think of any psychological disorders that could be studied or treated better using VR?

ANALYSIS

6. Can you compare the advantages and disadvantages of lab experiments and field studies in psychology?
7. How can experiments in VR improve on these existing research methods?

SYNTHESIS

8. What would you add to a VR simulation to study how accurate face-identity matching is in different circumstances?

EVALUATION

9. Do you think people's behaviour in VR will be the same as in real life? How would you measure how faithfully behaviour in VR reflects behaviour in real life?
10. Do you think there are any disadvantages to doing psychology experiments in VR?

CREATIVITY

11. How would you design your own psychology experiment in VR?

ACTIVITIES YOU CAN DO AT HOME OR IN THE CLASSROOM

- One important application of face perception and person perception research is understanding how reliable eyewitness testimony is in the justice system. Try an experiment to test out your memory. First, form a group with some classmates or friends. Decide on an event everyone remembers, like the first day of the term or a story or lecture by your teacher. Have everyone privately write down what they remember happening at the event. Once you have all finished, compare your memories. How well do they match? Can you design a VR experiment to study eyewitness testimony?
- Try creating your own virtual reality game using the Unity game engine from unity.com. Unity has guided programs like the Essentials Pathway and the Junior Programmer Pathway to get you started. The basic Unity licence is free of charge for everyone and the Unity Student Plan also offers students the professional version for free.

MORE RESOURCES

- Want to know more about what cognitive psychologists do? Markus' personal website has more information about his research in visual perception: www.kent.ac.uk/psychology/people/215/bindemann-markus
- Are you interested in how virtual reality can help treat people with psychological disorders? This short video from the BBC, "Could virtual reality help treat anxiety?", is worth a watch: www.youtube.com/watch?v=r7tY07QY66A
- Some people are exceptionally good at recognising other people's faces. Psychologists call them super-recognisers. Take an online test to find out if you're a super-recogniser: facetest.psy.unsw.edu.au/
- Read more about super-recognisers in this Scientific American article: www.scientificamerican.com/article/take-thisquiz-to-see-if-you-are-a-face-super-recognizer/