

# A Randomized Trial Testing the Effectiveness of Virtual Reality as a Tool for Pro-Environmental Dietary Change

Adéla Plechatá<sup>a\*</sup>, Thomas Morton<sup>a</sup>, Federico J.A. Perez-Cueto<sup>b</sup>, Guido Makransky<sup>a</sup>

<sup>a</sup> Department of Psychology, University of Copenhagen, Denmark

<sup>b</sup> Department of Food Science, University of Copenhagen, Denmark

[illegible]

### Response efficacy <sup>17</sup>

- If most people change their eating habits (according to suggested measures) the consequences of climate change will decrease.
- Consumption of food with a low carbon footprint is an effective measure to mitigate climate change.
- If I change my eating habits (according to suggested measures) the consequences of climate change will decrease.

### Self-efficacy

- I believe that I have the ability to take action to mitigate global warming and prevent climate change.<sup>45</sup>
- Although it may cause inconvenience, I can still change my behavior to mitigate global warming.<sup>45</sup>
- I feel capable of adopting more climate-friendly eating habits. <sup>17</sup>
- I feel capable of consuming more food with a low carbon footprint. <sup>17</sup>

### Intentions <sup>17</sup>

- In the future, I intend to cut the number of meals with meat to half.
- In the future, I intend to refrain from eating meat completely.
- In the future, I intend to replace beef meat with chicken/fish/pork every other meal.
- In the future, I intend to eat vegetarian food twice as often as today.

### Psychological distance <sup>36</sup>

- My local area is likely to be affected by climate change.
- Climate change will mostly affect areas that are far away from Denmark.
- Climate change will mostly affect developing countries.

- Climate change is likely to have a big impact on people like me.
- When, if at all, do you think Denmark will start feeling the effects of climate change?
  - a) *We are already feeling it*
  - b) *Very soon*
  - c) *Soon*
  - d) *Neutral*
  - e) *In distant future*
  - f) *In the very distant future*
  - g) *Never*

## 1.2 Additional analyses

Consistent with the main analyses reported in the main text, analyzing the impact of VR intervention on the self-efficacy measured with all four items, we did not find any effect of the VR treatment on the self-efficacy immediately after the intervention,  $b = 0.06$ , 95% CI  $[-0.09, 0.22]$ ,  $t(120) = 0.82$ ,  $p = .413$  or in the follow-up  $b = -0.16$ , 95% CI  $[-0.34, 0.03]$ ,  $t(89) = -1.65$ ,  $p = .102$ .

In the exploratory analyses, we also confirmed that when including all self-efficacy items, the normative feedback condition resulted in a significantly larger increase in self-efficacy compared to the no generic feedback,  $b = 0.24$ , 95% CI  $[0.02, 0.47]$ ,  $t(63) = 2.14$ ,  $p = .037$ .