Dear Editor,

We are pleased to submit to *Plos One* our manuscript entitled “**Too Beautiful to be Fake: Attractive Faces are Less Likely to be Judged as Artificially Generated**”. We believe it has the potential to attract a wide readership of scientists of various fields (consciousness psychologists, evolutionary scientists, AI-researchers), as well as attention from the public (deep fakes and AI-generated images being a mediatic issue).

This study is based on the fact that computer-generated images of faces are likely to become objectively indistinguishable from real photos in the near future, leaving a large role to subjective appraisal processes. How does perceived attractiveness, an important evolutionary mechanism, influence the beliefs about the reality of pictures?

We found that a simple manipulation the instructions (telling participants that some facial stimuli were AI-generated) successfully changed their beliefs for almost all participants, who did believe that a variable proportion of the images were fake. We found that their rating of the stimuli (for instance in terms of attractiveness) did influence their subsequent classification as real or fake, as well as a did other personality traits (such as narcissism).

By exploring the somewhat under-investigated phenomenon of reality beliefs determinants, this study provides data and evidence to accompany the technological evolution of our societies. Beyond raising interesting issues for consciousness science, our results have also practical implications for AI research (to understand the processes that make people “fall for” deep fakes).

In line with our aim to set the highest standards of methodological rigour and reproducibility, all the materials (the raw data, the pre-processing script, and the analysis scrip containing additional analyses and the code to generate the figures) has been made **fully available in open-access** at https://github.com/RealityBending/FakeFace.

This manuscript is original, not previously published, and not under concurrent consideration elsewhere. The data were collected in a manner consistent with ethical standards for the treatment of human subjects (NTU IRB-2022-187), and informed consent was obtained after the nature and possible consequences of the studies were explained. There is no conflict of interest to disclose. All authors have approved the manuscript and agree with its submission.

On behalf of all the authors,

Dominique Makowski

dom.makowski@gmail.com

**Potential reviewers:**

* **Prof Gianluca Esposito**, expert in face attractiveness (gianluca.esposito@unitn.it)
* **Dr Michael B. Lewis**, expert in face processing ([lewismb@cardiff.ac.uk](mailto:lewismb@cardiff.ac.uk))
* **Dr Manuel Barbosa de Oliveira,** expert in face perception (m.j.barbosadeoliveira@uu.nl)
* **Prof Anna Abraham**, expert in reality perception ([anna.abraham@uga.edu](mailto:anna.abraham@uga.edu))
* **Dr Steve Stewart-Williams**, expert in evolutionary psychology ([Steve.Stewart-Williams@nottingham.edu.my](mailto:Steve.Stewart-Williams@nottingham.edu.my))
* **Dr Cristina Voto,** expert in philosophy of AI, [cristina.voto@unito.it](mailto:cristina.voto@unito.it)
* **Dr raffaele tucciarelli**, expert in reality processing of faces, [r.tucciarelli@ucl.ac.uk](mailto:r.tucciarelli@ucl.ac.uk)
* **Neza Veha**r, expert in reality processing of faces, neza.vehar@epfl.ch