

# Watching doppelgangers helps men with low self-esteem improve public speech abilities

11 February 2021, by Bob Yirka



Charismatic speech view. Example of a participant's view of the virtual human giving a charismatic speech. Credit: Kleinlogel et al, 2021 (PLOS ONE, CC BY 4.0)

A team of researchers from the University of Lausanne and Ecole Polytechnique Fédérale de Lausanne, both in Switzerland, has found that men improve their speech-giving skills after watching a doppelganger of themselves give a speech. They have published a paper describing their findings on the open access site *PLOS ONE*.

Prior research has shown that confidence in one's own abilities can play an important role in performance when giving a [speech](#) in front of other people. In this new effort, the researchers have found a technical tool that can improve speech-giving skills for some people by boosting their confidence.

The work involved an experiment involving university student volunteers. Each subject filled out a questionnaire meant to assess confidence and self-perceived speech-giving abilities. Each [volunteer](#) was also asked about their level of

anxiety when giving speeches and how much public speaking experience they had. Next, the researchers took photographs of each of the volunteers and used the results to create virtual-reality doppelgangers. After that, the volunteers were divided into two groups: Each member of one group spent time interacting with their virtual doppelganger; members of the other group did the same with a generic avatar.

Next, the volunteers were asked to give a three-minute speech in a virtual reality room with a virtual crowd in attendance about their thoughts on the university fee structure. The researchers judged the quality of the speech based on body language, not content. Afterward, the volunteer was allowed to watch the speech they had just made, with their doppelganger giving the speech or a generic avatar giving the speech.

The last step in the experiment involved allowing each volunteer to give the speech again under the same conditions. Once again, the researchers judged the effectiveness of the speech based on body language.

In watching all of the volunteers in action, the researchers discovered that male volunteers who had self-identified as having [low self-esteem](#) prior to giving their speeches did better the second time if they first watched their doppelganger. They did not observe any changes in performance for any of the other volunteers, including all of the female participants.

**More information:** Emmanuelle P. Kleinlogel et al. Doppelganger-based training: Imitating our virtual self to accelerate interpersonal skills learning, *PLOS ONE* (2021). [DOI: 10.1371/journal.pone.0245960](https://doi.org/10.1371/journal.pone.0245960)

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