The Reverse-Chameleon Effect: Negative social consequences of anatomical mimicry.

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Abstract: Mirror mimicry has well-known consequences for the person being mimicked: it increases how positively they feel about the mimicker (the Chameleon Effect). Here we show that anatomical mimicry has the opposite social consequences: a Reverse-Chameleon Effect. To equate mirror and anatomical mimicry, we asked participants to have a face-to-face conversation with a digital human (VIRTUO), in a fully-immersive virtual environment. Participants' spontaneous head movements were tracked, and VIRTUO mimicked them at a 2-second delay, either mirror-wise, anatomically, or not at all (instead enacting another participant's movements). Participants who were mimicked mirror-wise rated their social interaction with VIRTUO to be significantly more positive than those who were mimicked anatomically. Participants who were not mimicked gave intermediate ratings. Beyond its practical implications, the Reverse-Chameleon Effect constrains theoretical accounts of how mimicry affects social perception.