

Incorporating a new auditory identity into the self-concept

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Abstract (max 300 words)

Our voice is central to our self-identity; an important medium through which we express ourselves to others and achieve social and communicative goals. Here we ask whether it is possible to give people a *new* voice – a voice that can become processed as self-relevant and enable a sense of agency over its use. All participants (n=88) were given the chance to choose a new synthesised voice identity to own, and half the group (n=44) were further able to *use* their new voice in a real-life social interaction. Specifically, these participants were given flexible control over their new voice via text-to-speech synthesis, enabling them to play a communicative two-player game online. We used a perceptual matching paradigm to measure whether participants perceived their new voice as self-relevant and attributed self-bias to it. Further, we used a temporal binding paradigm to measure participants' sense of agency over their new voice. Finally, we assessed whether self-bias or sense of agency were modulated specifically by using the new voice in a social interaction, versus only owning the voice. The results show that participants attributed self-bias to their new voice identity, relative to the voice of another, and also showed an increased sense of agency over it. This suggests that it is possible to incorporate a new voice into the self-concept. Surprisingly, these effects were not modulated by whether the new voice had been used interactively to represent the self or not. Indeed, self-bias and sense of agency were similar between participants who only owned the voice and those who owned it and had also been able to use it. The results suggest that the fundamental knowledge of what is self-owned (i.e., what is 'mine') may be sufficient to generate self-bias and a sense of agency over a new auditory identity.

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