

“A Voice Inside Your Head”: Listening to Messages Via Headphones Increases Immersion, Presence, Positive Impression, and Generosity

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Abstract



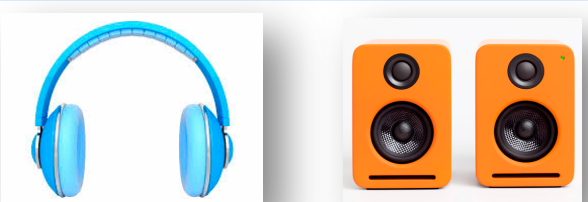
We demonstrate that listening to a genuine message via headphones increases listeners’:

- **immersion** (sense of being in an alternate setting as a function of modality),¹
- **communicator presence** (perceived physical and psychological closeness to another),²
- **positive impression** of the communicator, and
- **generosity** towards the communicator.

Introduction

- Billions of people listen to auditory messages daily, using either headphones or speakers. Yet, little research exists on how these two modalities influence listener perceptions and behaviors.
- Sounds heard from speakers are reflections of noise that bounce off of surrounding surfaces, which creates a perception of external spaciousness and masks the humanizing cues of the voice.³
- Headphones create in-head localization – delivering unmasked sound internally between the ears, directly inside of the listener’s head.⁴
- Bringing someone closer to the self humanizes the other and increases altruism.^{3,5}
- We predict that bringing the communicator’s voice internal to the listener through headphones will bridge the self-other divide and lead to a more positive impression of the communicator⁶ and increase generosity towards them.

Methods



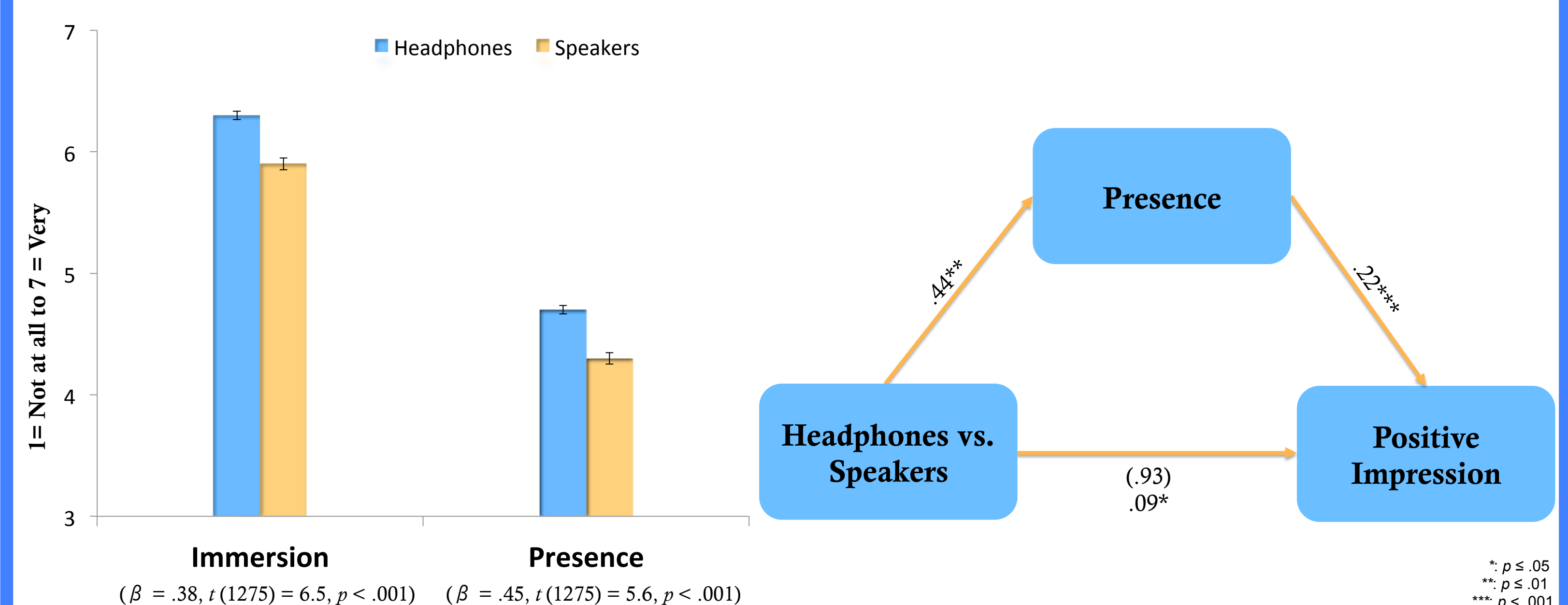
Study 1: Preregistered. Mturk (n=1277) participants uploaded photos of their headphones & speakers and were then randomized to listen to a genuine discussion between a homeless mother and daughter via one of these modalities. Participants reported immersion, presence, and impression of the communicators (perceived warmth and competence).⁷

Study 2: Affective content influences presence.⁸ Thus, removing the affective cues in a communicator’s voice should attenuate the effect of headphones on presence. In a 2 x 2 design (n=1,001), modality and communicator authenticity were manipulated. Participants listened via headphones (or speakers) and heard an authentic clip (or a rerecording of the clip read by 2 actors with no affect).

Study 3: Laboratory participants (n=557) listened to the authentic clip via headphones or speakers and reported immersion, presence, impression of the communicators, and how large of a donation to give to the women in the clip.

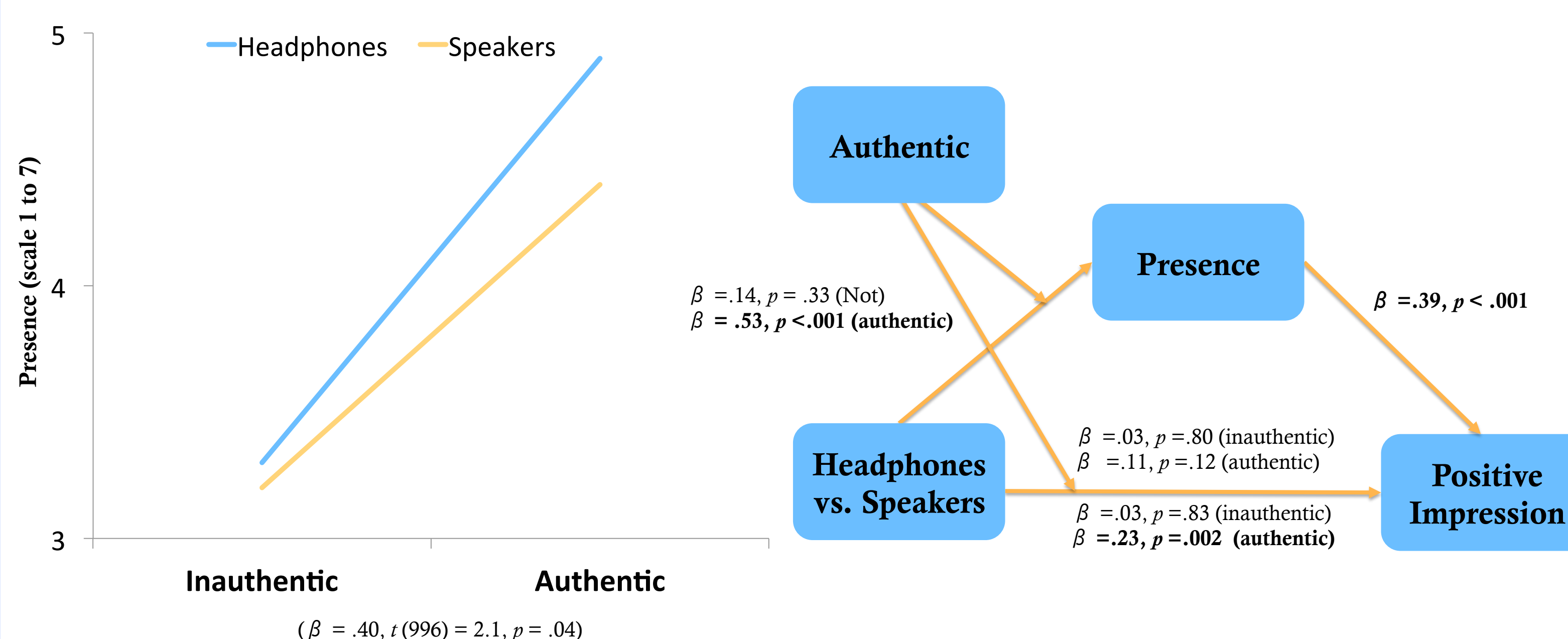
Study 1

- Participants listened to a real discussion between a mother and daughter about being homeless either via headphones or speakers.
- Participants in the headphones condition reported greater immersion, presence, and positive impression of the communicators.
- Presence mediated the effect of modality on positive impression.



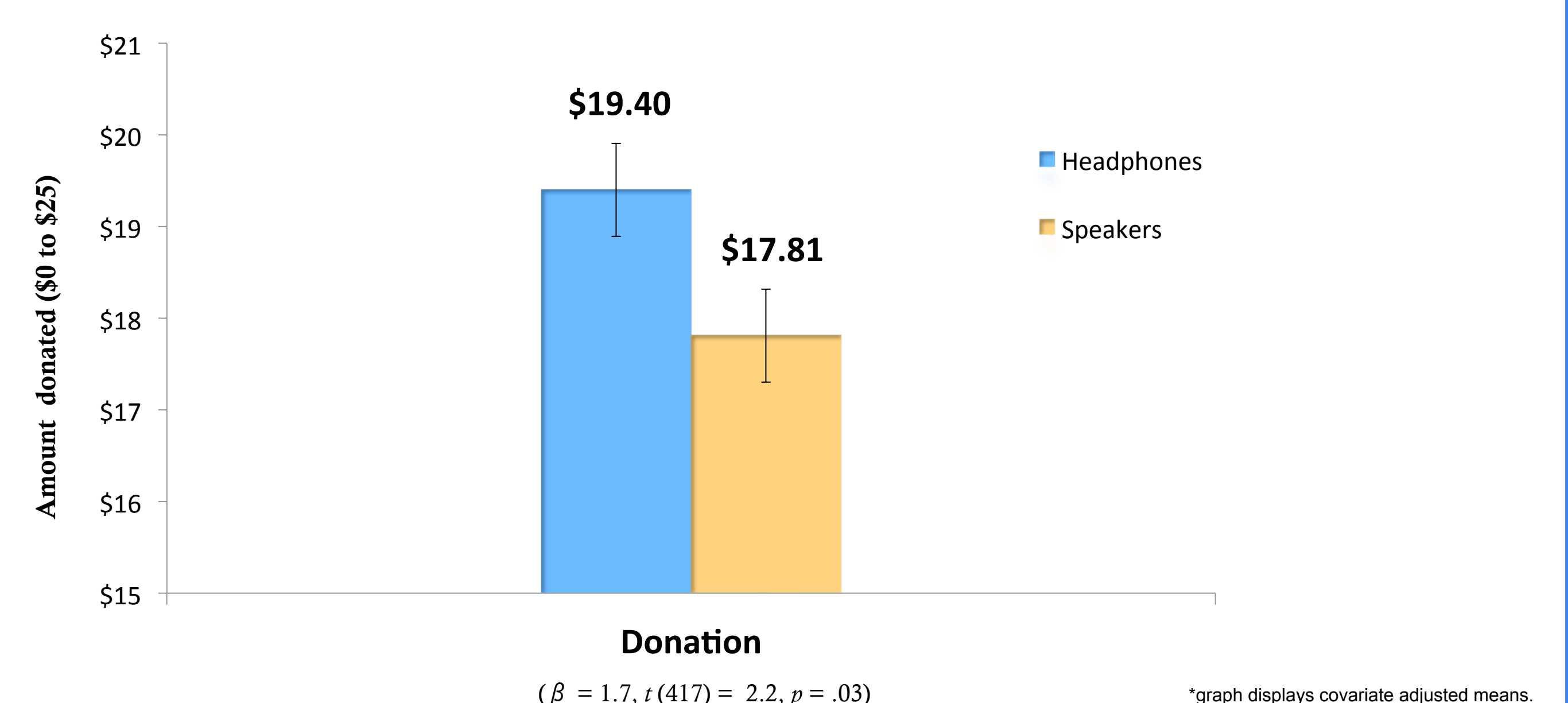
Study 2

- 2 (headphones vs. speakers) x 2 (authentic vs. inauthentic)
- Only those in the authentic condition perceived greater communicator presence in headphones.
- Presence mediated the effect of headphones on positive impression, but only for those who heard the authentic clip.



Study 3

- Participants who listened via headphones reported greater immersion, presence, and positive impression – providing conceptual replication in a lab setting.
- Participants entered a lottery for \$25 and were given the opportunity to donate to the communicators. **Among subjects who donated, those who listened to the same clip in headphones (vs. speakers) donated more.**



Conclusion & Discussion

- The consumption of auditory messages is increasing rapidly; podcast subscriptions alone topped one billion in 2013.⁹
- Prior to our studies, no research exists assessing how listening to a message via headphones or speakers influences listener attitudes and behaviors.
- We demonstrate that listening to an authentic message via headphones increases immersion, perceived presence, and positive impressions of the communicator--leading listeners to donate more money to the people speaking in the message.
- **In sum, not only does the simple way in which we listen to auditory messages affect our experiences, but it influences our perceptions and attitudes enough to drive our behaviors.**

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