How Memory and Storytelling May Work to Reduce Prejudice

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Abstract

A mediated intergroup contact using three transgender individuals' reported memories was experimentally evaluated. Participants (N = 172) completed an online questionnaire measuring their prior contact with transgender people, the narrative transportation induced by the vignettes they read, their intergroup anxiety levels post-intervention, future contact intentions (FCI), and how "warm" they felt toward transgender individuals. Results for the pre-registered analysis, while slim, provoked exploratory analysis which discovered that the intervention decreased men's warmth and FCI, while increasing women's.

Introduction

Intergroup contact theory posits that prejudice is reduced when individuals from differing groups interact with one another. Mediated contact is contact produced indirectly, often through a telecommunications medium. This is useful when there are barriers to accessing members of the marginalized group, e.g. when they are few in number, as is the case with transgender individuals. Intergroup contact research with transgender participants shows that gender (men rather than women), religiosity, and traditional/conservative political values tends to predict higher levels of transphobia.

As the autobiographical memory (ABM) system has strong connection to both identity and storytelling (Palombo, 2024), the sharing of personal experiences has great potential as mediated intergroup contact intervention.

Narrative transportation describes the perception of being immersed in whatever media one experiences. The present work created a mediated contact intervention to reduce prejudice and aims to better understand the way in which memory type and narrative transportation influences cisgender individual's feelings towards transgender people.

The hypotheses, as pre-registered on AsPredicted (#228028):

Participants in the two mediated contact conditions will report warmer feelings and greater FCI toward transgender people than those in the control condition, controlling for previous contact and levels of intergroup anxiety (Stephen & Stephen, 1985).

Those in the autobiographical memory condition will report warmer scores and higher levels of narrative transportation (Transportation - Short Form, TS-SF, Appel et al., 2015) than in the biographical essay condition.

Narrative transportation will predict warmer feelings and greater FCI toward transgender people.

Methods

In each treatment condition, participants read vignettes describing the memories of three transgender individuals: the first in their own words (the ABM condition) and the second as a biographical essay written by the first author. The control consisted of descriptions of vacation destinations, written by the same author. All conditions were consistent in approximate length.

Data was collected using Qualtrics and Prolific Academic over two days in April-May, 2025.

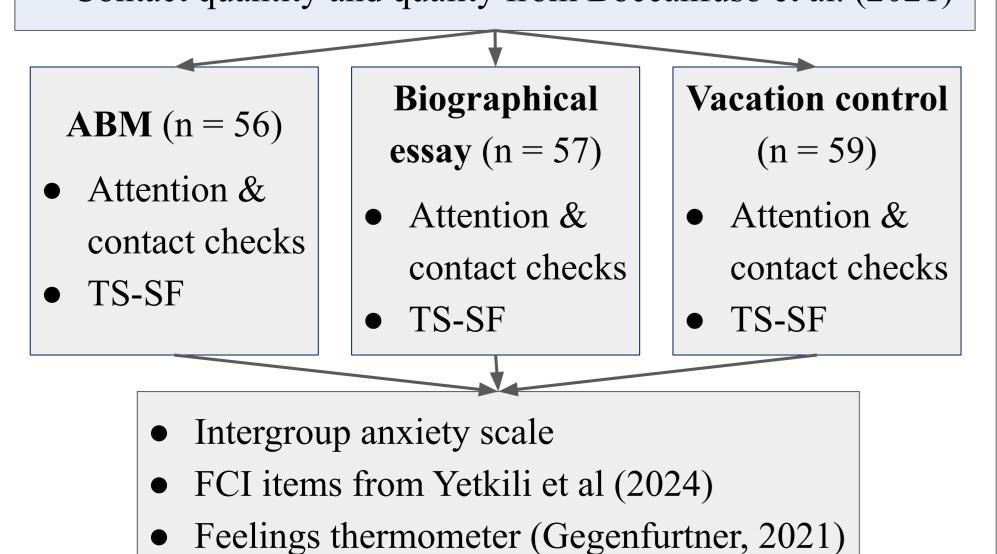
Survey Flow/Outline

Participants N = 172

• Demographics:

Women 37.8%; age M = 43.31, SD = 12.02English/Welsh/Scottish/Northern Irish 70.9%, African

- 7.6%, any other white 4.1%, Indian 3.5%, Chinese
- 2.9%, white and Black African 2.9%, ethnicities that are
- < 2% of sample 8.4%)
- Contact quantity and quality from Boccanfuso et al. (2021)



ABM Condition

Memories from ROS' ...

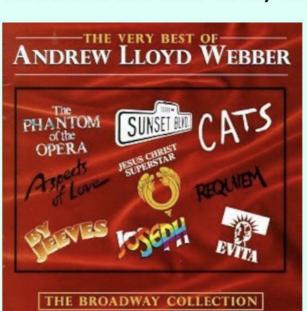


A memory from the wardrobe. My partner bought me these trousers when we were around 16 years old. I was just coming to terms with being queer and I had started experimenting with my presentation. My mum hated these trousers and at college people laughed at me whenever I wore them. I didn't care though, it was the first time I felt I had control over what I could wear.

NDREW LLOYD WEBBE

A memory from the <u>radio</u>.

I want to talk about the music I used to listen to as a teenager on my on my paper round. I used to listen to, erm, I was a very cool teenager, as you're about to discover: I used to listen to The Very Best of Andrew Lloyd Webber. Because it was time on my own, when I had time to think,



which actually as a teenager, I didn't otherwise get much of, and I was quite badly bullied at school. I didn't have a very nice time at school at all. But I sort of developed my

consciousness and my inner dialogue as a teenager, really, through this time doing my paper round, and so listening to —and singing along to, erm, out loud—<u>The Very Best of</u> Andrew Lloyd Webber was actually really important to me in figuring out what I like and, you know, is it okay that it's different from what other people like.

Biographical Condition

AEH was born in a large town outside of Manchester. Their parents divorced at about the time they went to university, and since then, AEH has been back as little as possible. They have one brother, who is three years younger than them. They went to a local school, and completed their A Levels in 2008. While they are now a humanist, they grew up Quaker, which still informs their views on pacifism and pluralism. Their favorite subject was English, but they were skilled at most of them. They liked figuring out why stories impacted them emotionally, which, over time, resulted in working as a university lecturer in English.

One of IVY's life's passions has been football. She played for a club for twelve years, before being forced out by the threat of open harassment after starting her transition. She still follows every game of her favorite team, Manchester City, and says that, since moving to the United Kingdom, some of her favorite memories have come from attending their matches live. Her love for the team was sparked by a contrarian desire to support their recruitment of Mario Balotelli in 2010, who is still looked down on to this day. Because of this, and the far-right influence on fans of Hungarian clubs, she maintains her allegiance to British football. She also enjoys video games, but has become more discerning with these as an adult. She loves spending time with her girlfriend, exploring London or taking longer excursions somewhere else.

Control Condition

Greetings from Playa Tamarindo!

Playa Tamarindo is one of the best surfing locations in Costa Rica. Tamarindo itself, located on Costa Rica's Pacific Coast, offers multiple beaches (playas), and Playa Langosta a more secluded, naturalistic surfing beach is an hour from Guanacaste Airport, one of Costa Rica's



international airports. Playa Langosta regularly boasts international surf competitions. Other water sports include fishing, parasailing, windsurfing, and paddle boarding. Sport fishing, sailing, and snorkeling boats can be chartered for excursions to nearby islands. Many find themselves strolling from beach to pool to beach, relaxing in the sun and enjoying the simple, yet vibrant "pura vida" spirit that Costa Rica extends to its visitors.

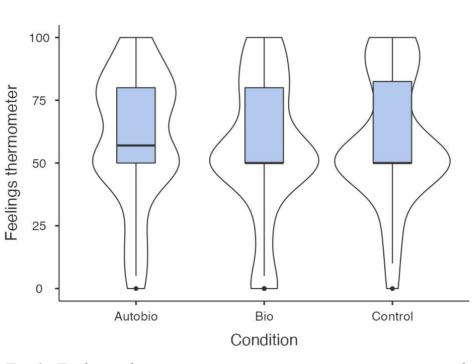
This natural region extends from the Irish Sea east through the Cumbrian mountains. Lake District National Park is bounded by the A6 road to the east. Contemporary travelers enjoy a network of over 70 public "right of way" foot and bridleway paths that cover over one thousand miles of scenic countryside. Visitors walk

between local villages, around lakes, and through valleys. They summit peaks like Scafell Pike, the tallest mountain in England, on top of which, on clear days, climbers see to Scotland, Northern Ireland, Wales, and the Isle of Man. Water recreation on any of the sixteen major lakes includes swimming, kayaking, boating, and paddle boarding, among other popular pastimes.



Results

H1: No post-intervention differences between conditions for thermometer ratings or future contact interventions



A One-Way Between-Subjects ANCOVA, controlling for previous contact and intergroup anxiety indicated no significant effect for thermometer reading:

 $F(2, 166) = 2.46, p = .088, \eta p^2 = .03.$

Fig 1: Feelings thermometer ratings across intervention conditions

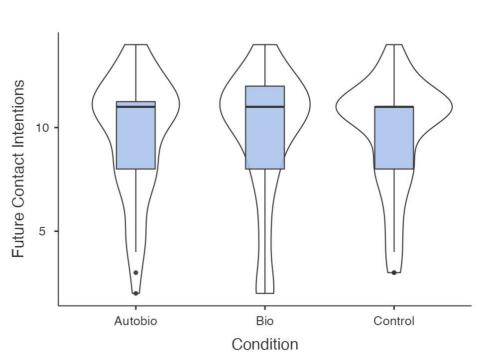
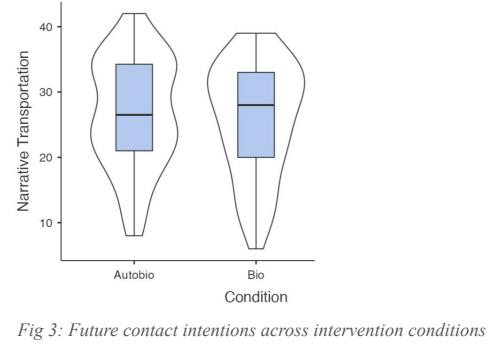


Fig 2: Future contact intentions across intervention conditions

A One-Way Between-Subjects ANCOVA, controlling for previous contact and intergroup anxiety indicated no significant effect for future contact intentions:

 $F(2,166) = 1.58, p = .208, \eta p^2 = .02.$

H2: No significant differences between ABM and biographical conditions in narrative transportation



H1's feelings thermometer ANCOVA returned the null, so no Post-Hoc testing of warmth scores.

An independent samples t-test found no significant difference between ABM (M = 26.68, SD = 8.40) and biographical essay conditions (M =25.75, SD = 8.6), t(111) = .03, p =

H3: Narrative transportation significantly impacts on thermometer ratings and future contact intentions

Multiple regression explored effects of narrative transportation and condition on the outcome variables and revealed significant associations:

Thermometer ratings: $R^2 = .07$, F(2, 169) = .16, p < .001

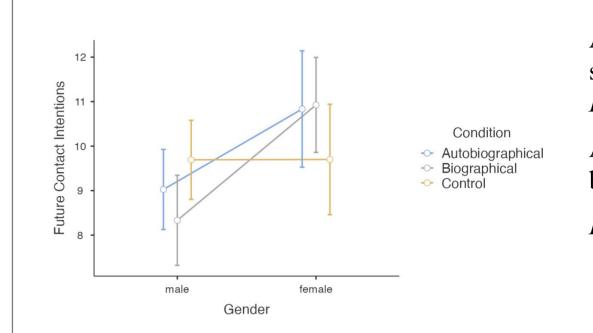
Future Contact Intentions: $R^2 = .07$, F(2, 169) = 6.77, p = .001

However, while narrative transportation correlated with each outcome variable, note H2 finding that narrative transportation does not differ across conditions.

Additional Exploratory Analysis: Assessing Effects of Gender

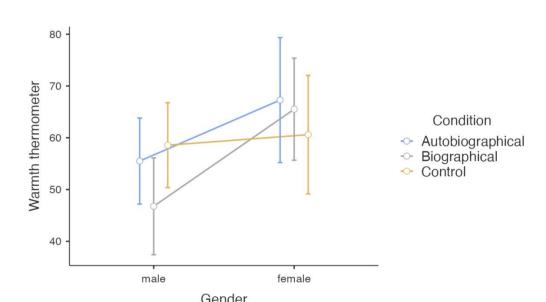
Consistent with previous research, exploratory analysis found that gender interacted with the effects of the intervention condition:

- Adding gender as a covariate to ANCOVA increased the accuracy of the model for thermometer ratings $[F(2,165) = 2.86, p = .060, \eta p^2 =$
- Future contact intentions not explored, since interaction effect between gender and condition violates homogeneity of variance assumption $[F(2,166) = 3.01, p = .052, \eta p^2 = .04]$
- Two-way ANOVAs were used to explore how the outcome variables were impacted by any interactions between gender and condition:



A 2 way between subjects ANOVA showed main effects of gender on FCI: $F(1, 166) = 10.80, p = .001, \eta p^2 = .06.$ And a borderline significant interaction between gender and condition: $F(2, 166) = 3.01, p = .052, \eta p^2 = .03.$

Fig 4: Future Contact Intentions as a function of gender and



A 2 way between subjects ANOVA showed main effects of gender on thermometer:

 $F(1, 166) = 6.91, p = .009, \eta p^2 = .04$ Non significant interaction.

Fig 5: Thermometer ratings as a function of gender and intervention

Discussion

Narrative transportation is linked to warmth and future contact intentions, but does not differ across the intervention conditions. It is possible that participants who were transported enjoyed the task more.

Planned analyses showed that the autobiographical and biographical interventions did not appear to influence feelings of warmth or future contact intentions.

However, additional exploratory analyses revealed an interesting effect of gender, such that men and women scored differently on the outcome variables and may respond in opposite ways to the intervention. This would have confounded the planned statistical analysis.

Along with intergroup anxiety, empathy is another frequently studied mediator of intergroup contact. Gendered differences in empathy is potentially related to the effect for gender.

Limitations

- Normality Concerns: Fifty-eight participants (30%) of the sample responded exactly the same on both outcome variables..
- Participants with high levels of preexisting transphobia may have self-selected out of the study.

Conclusion

While the planned analysis did not produce many significant results, exploratory Two-way ANOVAs demonstrated that a memory-based contact intervention improved feelings and intentions in women, but "backfired" for men. Future research will explore why this might be.

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