

Spring 2023

## It's Not a Phobia: Reducing Transnegativity Using Imagined Intergroup Contact

Rachel Cook

Follow this and additional works at: <https://digitalcommons.georgiasouthern.edu/etd>



Part of the [Social Psychology Commons](#)

---

### Recommended Citation

Cook, Rachel, "It's Not a Phobia: Reducing Transnegativity Using Imagined Intergroup Contact" (2023). *Electronic Theses and Dissertations*. 2597.  
<https://digitalcommons.georgiasouthern.edu/etd/2597>

This thesis (open access) is brought to you for free and open access by the Jack N. Averitt College of Graduate Studies at Digital Commons@Georgia Southern. It has been accepted for inclusion in Electronic Theses and Dissertations by an authorized administrator of Digital Commons@Georgia Southern. For more information, please contact [digitalcommons@georgiasouthern.edu](mailto:digitalcommons@georgiasouthern.edu).

# IT'S NOT A PHOBIA: REDUCING TRANSNEGATIVITY USING IMAGINED INTERGROUP CONTACT

by

RACHEL COOK

(Under the Direction of Amy Hackney)

## ABSTRACT

The present study evaluated the efficacy of a novel imagined intergroup contact procedure in reducing feelings of transnegativity held by cisgender individuals. The intervention, based on the Fast Friends Procedure (Aron et al., 1997), has participants interact with a fictional transgender person who answers questions about himself; participants then write a free-response answer to the question for themselves. The current hypotheses were that the imagined intergroup contact procedure would (1) reduce feelings of transnegativity, (2) reduce feelings of contact apprehension toward transgender people, and (3) increase feelings of self-other overlap between cisgender people and a transgender target. In Study 1, a group of primarily White, cisgender female college students ( $n = 44$ ) completed the imagined contact procedure to see if it increased feelings of self-other overlap; a demographically similar group was evaluated for Study 2 ( $n = 55$ ) to see if it increased feelings of self-other overlap while decreasing feelings of contact apprehension and self-reported transnegative beliefs. While Study 1 saw an increase of feelings in self-other overlap between cisgender people and the transgender target (Cohen's  $d = .59$ ), Study 2 saw no impact of the imagined intergroup contact procedure on any of the target measures (all  $ps > .05$ ). This may be due to small sample size and inadequate power or due to the imagined intergroup contact scenario using only part of the Fast Friends Procedure (Aron et al., 1997); rather than using all twenty-four questions, it only sampled four of them. If the findings are accurate, it means that the novel imagined intergroup contact procedure, as used in the current study, is an ineffective way to reduce transnegativity among participants. Researchers must continue exploring new venues of prejudice reduction to best protect transgender individuals.

**INDEX WORDS:** Transnegativity, Imagined intergroup contact, Fast friends procedure, Prejudice reduction

IT'S NOT A PHOBIA: REDUCING TRANSNEGATIVITY USING IMAGINED  
INTERGROUP CONTACT

by

RACHEL COOK

B.S., Kennesaw State University, 2019

A Thesis Submitted to the Graduate Faculty of Georgia Southern University

in Partial Fulfillment of the Requirements for the Degree

MASTER OF SCIENCE

COLLEGE OF BEHAVIORAL AND SOCIAL SCIENCES

© 2022

RACHEL COOK

All Rights Reserved

IT'S NOT A PHOBIA: REDUCING TRANSNEGATIVITY USING IMAGINED  
INTERGROUP CONTACT

by

RACHEL COOK

Major Professor:  
Committee:

Amy Hackney  
C. Thresa Yancey  
Rebekah Estevez

Electronic Version Approved:  
May 2023

## DEDICATION

The dedication to this thesis is split in two parts:

To Blake Kinnett, who gave me a home when I had none without question or hesitation, for as long as I needed, and who has offered to do that many times over.

To Jessica Fisher, who has shown me time and again that doing work within and without the trappings of academia is possible, meaningful, and fulfilling.

## ACKNOWLEDGMENTS

I would like to take this time to thank the team of people who have made this thesis possible. First and foremost, thank you to Dr. Amy Hackney, without whom this thesis would have never come to pass. Your guidance has been invaluable. Thank you to Dr. C. Thresa Yancey for your attention to detail; my work is better for it. Thank you to Dr. Rebekah Estevez for bringing energy and optimism to my thesis discussions, and for believing in the value of my work. Thank you to Dr. Nicholas Holtzman for helping with the early mathematical foundations of this thesis and guiding it towards validity and reliability. Thank you to Kaylee George, Jordan Salafia, Maggie Poff, and Megan Cole, all of whom put in hours of work running participants and whose efforts made the collection of data not only manageable, but even possible. Thank you to the workers for the GSO Professional Development Grant and the SPSSI Clara Mayo Grant who found this thesis to be meaningful and who helped to fund it.

## TABLE OF CONTENTS

	Page
DEDICATION .....	2
ACKNOWLEDGEMENTS .....	3
LIST OF TABLES .....	6
LIST OF FIGURES .....	7
CHAPTER	
1 INTRODUCTION .....	8
Intergroup Contact Theory .....	9
The Fast Friends Procedure .....	10
Imagined Intergroup Contact .....	11
Overview of the Current Investigation .....	11
2 STUDY 1 .....	13
Method .....	13
Results .....	16
Discussion for Study 1 .....	17
3 STUDY 2 .....	19
Method .....	19
Results .....	23
Discussion for Study 2 .....	24
4 GENERAL DISCUSSION .....	26
Future Directions .....	27
Conclusion .....	28



## TABLE OF CONTENTS (CONT.)

	Page
REFERENCES .....	30
APPENDICES	
A IMAGINED INTERGROUP CONTACT PROCEDURE – STUDY 1 EDITION .....	43
B IMAGINED INTERGROUP CONTACT PROCEDURE – STUDY 2 EDITION .....	52
C CONTROL PROCEDURE – STUDY 2 EDITION .....	61
D COMPREHENSION CHECK .....	69

## LIST OF TABLES

	Page
Table 1: Mixed-Factor ANOVA Results Using IOS Scores from Study 1 as a Criterion.....	35
Table 2: Mixed-Factor ANOVA Results Using GTS Scores from Study 2 as a Criterion.....	36
Table 3: Mixed-Factor ANOVA Results Using CATT Scores from Study 2 as a Criterion.....	37
Table 4: Mixed-Factor ANOVA Results Using IOS Scores from Study 2 as a Criterion.....	38

## LIST OF FIGURES

	Page
Figure 1: Comparison of Marginal Means for the IOS Pre- and Post-Tests of Study 1 by Condition.....	39
Figure 2: Comparison of Marginal Means for the GTS Pre- and Post-Tests of Study 2 by Condition.....	40
Figure 3: Comparison of Marginal Means for the CATT Pre- and Post-Tests of Study 2 by Condition.....	41
Figure 4: Comparison of Marginal Means for the IOS Pre- and Post-Tests of Study 2 by Condition.....	42

## CHAPTER 1

### INTRODUCTION

Transnegativity, or social and interpersonal-level bias against transgender individuals, is a topic of burgeoning research interest in the psychological community. As recently as 2020, there were 1.4 million adults in the United States of America who identified as transgender—that is, there were 1.4 million adults who reported that their gender did not match the sex assigned to them at birth (Conron & Goldberg, 2020). Of great concern, transgender adults are at risk of serious mental and physical health symptoms due to individual and systemic experiences of transnegativity, which can impact their quality of life.

The effects of transnegativity can impair both the physical and emotional security of transgender people. Transgender people—both children and adults—are at a heightened risk of gender-based physical, sexual, and emotional violence by peers, family, and strangers in comparison to their cisgender counterparts, as well as experiencing more difficulties when seeking justice for this violence (Wirtz et al., 2020). Transgender people are also at a heightened risk of non-suicidal self-injurious behaviors and suicidal behaviors because of the stresses accrued by belonging to a minoritized group (Staples et al., 2017). Even when taking into account traits such as resilience, transnegativity causes significant negative health outcomes for members of the transgender community (Meyer, 2015).

With such pressing ramifications of transnegative attitudes and behaviors, it is no wonder that the psychological community is increasingly invested in reducing prejudicial attitudes and actions toward transgender persons. Researchers have used pedagogical interventions (McDermott et al., 2018), created research groups with a primary focus on advocacy for transgender people (Hope et al., 2020), and, most notably for this study, explored the impact of intergroup contact on

transnegativity (Davies & Aron, 2016; Flores, 2015; King et al., 2009). The current research seeks to use the foundations of intergroup contact theory to design and implement a novel imagined intergroup contact intervention modeled after the Fast Friends procedure (Aron et al., 1997); the ultimate goal of this intervention's development is the reduction of transnegativity.

### **Intergroup Contact Theory**

Intergroup contact theory is, in brief, the idea that humans' sentiments about members of an outgroup are predicated by the amount and quality of contact they have with members of that group (Pettigrew, 1998). In other words, proponents of intergroup contact theory state that inducing positive contact between members of different identity groups will induce positive feelings toward the entire outgroup identity.

Research appears to generally support this claim. Some longitudinal research indicates the development of friendships with outgroup members strongly predicts positive feelings of outgroup members; results are particularly strong as the length of the friendships and the number of interactions with the outgroup members increase (Davies & Aron, 2016). Other research identified a similar mechanism at play in the tension between cisgender and transgender individuals; cisgender people (that is, individuals who identify with the sex that they were designated at birth) who report knowing more about transgender people also report fewer feelings of prejudice toward them (Flores, 2015). There is cross-cultural support for this phenomenon. For instance, in a study by King and colleagues (King et al., 2019), participants in Hong Kong who report higher numbers of interactions with transgender individuals also report reduced levels of transnegativity in comparison to their peers. The outgroup member does not even have to be real for the intergroup contact to reduce prejudice; fictional exposure to transgender people (e.g., reading a story in which

a transgender person features heavily) can reduce feelings of transnegativity in cisgender participants (Hoffarth & Hodson, 2018; Orellana, 2020).

A potential mediator of this phenomenon is contact anxiety—the feeling of anxiety associated with being introduced to an individual from a new or rarely contacted outgroup (McCullough et al., 2019; Hoffarth & Hodson, 2018). A recent study using multiple linear regression to evaluate predictors of transnegative sentiments found that contact apprehension toward transgender persons and measures of intergroup anxiety are stronger predictors of transnegative beliefs than right-wing authoritarianism and social dominance orientation (McCullough et al., 2019).

### **Fast Friends Procedure**

The development of friendship is an integral mechanism for the successful implementation of intergroup contact theory; if there is not a positive component of friendship development—that is, positive feelings of closeness between two individuals—intergroup contact theory is unsuccessful in prejudice reduction (Pettigrew, 1998). Therefore, to optimize the prejudice reduction effects of intergroup contact theory, it is beneficial to use a procedure intended to experimentally induce feelings of interpersonal closeness in targeted participants. The Fast Friends procedure (Aron et al., 1997) is a series of questions that a set of partners takes turns answering; as the procedure continues, the intimacy of the disclosures increases. This self-disclosure of intimate information is known to reduce prejudice among different racial groups (Turner et al., 2007).

To date, there is minimal research using the Fast Friends procedure for transgender populations. However, one study found that heterosexual people felt reduced feelings of prejudice

toward gay men and lesbian women after engaging in a modified version of the Fast Friends procedure (Lytle & Levy, 2015).

The traditional Fast Friends procedure is meant to be conducted between two individuals face-to-face (Aron et al., 1997). However, because transgender people are at a heightened risk of social and even physical violence (Wirtz et al., 2020), it is unethical to place transgender confederates in a position which might compromise their safety. Prior research, facing similar considerations of safety for their confederates, established a virtual Fast Friends procedure to keep their confederates safe (Lytle & Levy, 2015). In another alternative, the current research seeks to implement an imagined intergroup contact procedure in lieu of the traditional Fast Friends procedure to minimize as many associated risks as possible.

### **Imagined Intergroup Contact**

Imagined intergroup contact is a procedure in which participants imagine a generally pleasant interaction between themselves and members of a target outgroup member (Crisp et al., 2008). This procedure induces feelings of closeness between members of different social groups. This form of intergroup contact has been found to reduce long-term contact anxiety toward people with schizophrenia (Schuhl et al., 2019) and toward members of different ethnic groups (Iguarta et al., 2018). Though the application of imagined contact to transnegativity is limited, there is burgeoning evidence that imagined contact works in this capacity as well. People who experienced an imagined contact procedure with a fictional transgender person reduced instances of biased hiring practices in a simulation (Moss-Racusin & Rabasco, 2018).

### **Overview of the Current Investigation**

The current research sought to use these foundations of intergroup contact theory to design a novel imagined intergroup contact intervention procedure to reduce transnegative sentiments

from cisgender participants towards transgender people. The first study (Study 1) sought to establish that a novel imagined contact procedure effectively targeted feelings of interpersonal closeness in accordance with the prior established literature (Aron et al., 1997; Lytle & Levy, 2015). In this study, it was hypothesized that participants in the imagined contact procedure would experience an increase in feelings of self-other overlap not experienced by the participants in the control condition.

The second study (Study 2) sought to determine if the imagined contact procedure impacted affective measures of transnegativity similarly to how it impacts intentions to act (Moss-Racusin & Rabasco, 2018). In this study, it was predicted that participants in the imagined contact condition would reduce transnegative affect and contact apprehension toward transgender people and experience an increase in self-other overlap from pre- and post-test conditions; participants randomly assigned to the control condition were not expected to reduce transnegativity from pre to post-test conditions. Ultimately, this research sought to establish a novel imagined contact procedure based on the Fast Friends procedure (Aron et al., 1997), with the goal of experimentally producing a significant reduction in transnegative prejudice.



## CHAPTER 2

## STUDY 1

**Method*****Participants***

A total of 50 students from an R2 university in the southeastern United States were recruited for this study. Two participants who self-reported not being cisgender, one participant who self-reported being under the age of 18 during the demographic questionnaire, two participants who did not disclose their age on the demographic questionnaire, and one participant who experienced a significant situational disruption while participating were eliminated from analyses due to failure to meet inclusion criteria. This left 44 participants of approximately 19 years of age ( $M = 19.48$ ,  $SD = 1.46$ ). Participants were predominantly cisgender female ( $n = 30$ ), White ( $n = 23$ ), and self-identified as freshmen ( $n = 15$ ). Participants completed the procedure in one session for a \$17 electronic Visa gift card. Participants were randomly assigned to one of two conditions: control ( $n = 21$ ) or the imagined contact condition ( $n = 23$ ).

***Procedure***

Participants were recruited in person at the on-campus library. The study was conducted on a laptop provided by the experimenter. Those who agreed to participate moved to a quiet location within the library to minimize potential disruptions. After the initial informed consent procedure, participants answered a pre-measure of the Inclusion of the Other in the Self Scale (IOS); then, they were randomly assigned to one of two conditions. Participants assigned to the control condition ( $n = 21$ ) were instructed to relax until a timer set for ninety seconds counted down; the page automatically advanced after the timer finished. Participants assigned to the imagined contact intervention ( $n = 23$ ) completed an imagined intergroup contact procedure. Upon

beginning the imagined contact intervention, participants were instructed that they were going to participate in a guided visualization exercise. They were asked to take time and answer questions with particular focus on their sensory and emotional experiences. See Appendix A for the guided visualization exercise.

The intervention was written in the form of a story with the option for free-response answers in some places. Participants were introduced to a fictional transgender man and prompted to participate in a conversation with him. This fictional character, named Elliot, was a young, White, conventionally attractive man. This appearance is important; people whose identities include multiple marginalized groups experience intersectional oppression—that is, oppression that is specific to their intersecting identities. In other words, the oppression experienced by someone who is part of multiple groups that are marginalized is unique (Steinbugler et al., 2006). The current research sought to only examine the impact of imagined contact on the prejudice towards transgender individuals; therefore, other visible identities were in line with those that do not experience oppression.

The transgender man was identified by a transgender pride flag pin displayed on his backpack in the intervention story. Participants were asked to imagine introducing themselves. They then typed in answers to four questions from the Fast Friends Procedure (Aron et al., 1997) such as “Before you make a telephone call, do you ever rehearse what you’re going to say? Why?” and “Is there something you’ve dreamt about doing for a long time? Why haven’t you done it?” The fictional transgender man also gave answers to these questions.

After their respective interventions, all participants completed the IOS once again. Participants then completed a demographics questionnaire, were debriefed, and completed a separate anonymized survey to receive their financial incentive for participation.

## **Measures**

**Inclusion of Other in the Self (IOS).** Both the control and intervention group participants' feelings of closeness with transgender individuals were measured by a version of the Inclusion of Other in the Self scale (IOS) created by Aron et al. (1992), modified to reference transgender individuals. The IOS is a seven-point Likert-type scale in which participants are shown seven Venn diagrams. In each of these Venn diagrams, one circle has an X in it and the other is labeled "You" (meaning the viewer). These Venn diagrams show increasing increments of overlap intended to signify feelings of closeness, such that selecting a 1 on the scale shows two circles with no overlap and a 7 on the scale shows near-complete overlap. Participants in this study were asked: "If 'X' represents a transgender individual, which of the following images best represents how similar you think you are to a transgender person?"

**Comprehension check.** Participants in the imagined contact condition also completed a comprehension check upon completing the condition to ensure that they identified the fictional target as a transgender man. They were asked two questions: "Why did Elliot have a patch on his bag?" and "What was Elliot's gender identity?" and given a free response option. Of the participants who were in the imagined contact condition ( $n = 23$ ), most identified the target as a man ( $n = 17$ ). A minority of them identified him explicitly as transgender in their free-response answer ( $n = 6$ ), and some others identified his gender incorrectly ( $n = 5$ ). The implications of these answers are expanded upon in the discussion of Study 1.

**Demographics.** Participants provided their age, racial identity, gender, and academic classification. Because Study 1 sought to measure feelings of self-other overlap between outgroup members, participants needed to identify as cisgender. As such, participants answered, as part of

the demographics portion, “Do you identify as the gender you were assigned at birth (are you cisgender)?” and self-reported yes or no.

## Results

To ensure that there were no differences in IOS scores at pre-test between participants in the control group and the imagined contact condition, an independent-samples *t*-test of the pre-test IOS scores by condition was conducted. The control group ( $n = 21$ ) IOS pre-test scores ( $M = 2.14$ ,  $SD = 1.35$ ) were not significantly different from the imagined contact group ( $M = 1.87$ ,  $SD = 1.14$ ),  $t(42) = 0.73$ ,  $p = 0.47$ , Cohen’s- $d = 0.219$ . This supports the assumption that random assignment was successfully conducted and that any difference between the two groups at post-test was a result of the intervention as opposed to a failure of random assignment.

Next, a 2 (Contact: Imagined contact vs. control) x 2 (Test: pretest vs. posttest) Mixed ANOVA with repeated measures on the last factor was used to analyze the data. The results of this ANOVA are depicted in Table 1. There was an effect of the contact condition,  $F(1, 42) = 145.81$ ,  $p < .01$ , such that participants in the imagined contact condition ( $M = 2.28$ ,  $SEM = .26$ ) rated themselves as closer to a transgender person than those in the control condition ( $M = 2.14$ ,  $SEM = .28$ ). There was also a main effect of test time,  $F(1, 42) = 6.13$ ,  $p = .02$ ,  $\eta^2_p = 0.13$ , such that the IOS post-tests ( $M = 2.42$ ,  $SEM = .23$ ) displayed higher levels of reported closeness than the IOS pre-tests ( $M = 2.01$ ,  $SEM = .19$ ). Finally, as expected, there was a significant interaction between contact and test time,  $F(1, 42) = 6.13$ ,  $p = .02$ ,  $\eta^2_p = 0.13$ . A visualization of this interaction can be seen in Figure 1. As shown, the control group did not differ in their pre- and post-test scores; however, the imagined contact group showed a significant increase in their average Inclusion of Other in the Self Score after experiencing the imagined contact intervention.

To further evaluate the interaction, simple-effect paired *t*-tests were conducted for post-hoc analysis. These simple-effect paired samples *t*-tests confirmed that for those in the imagined contact condition, pre-test scores ( $M = 1.87$ ,  $SEM = .29$ ) were significantly lower than post-test scores ( $M = 2.70$ ,  $SEM = .34$ ),  $t(22) = 2.59$ ,  $p = .02$ , Cohen's  $d = .59$ . For participants in the control condition, there was no difference between pre-test ( $M = 2.14$ ,  $SEM = .30$ ) and post-test scores ( $M = 2.14$ ,  $SEM = .30$ ).

### **Discussion for Study 1**

Results from Study 1 demonstrate that an imagined intergroup contact scenario modeled upon Aron et al. (1997)'s Fast Friends procedure has the potential to experimentally induce feelings of closeness between participants and a contact group—in this case, transgender individuals. Participants who experienced imagined contact with a transgender individual reported increased feelings of self-other overlap compared to their counterparts in the control group. This aligns with the pattern found by Lytle and Levy (2015) when discussing heterosexual participants reporting feelings of increased closeness with a sexual minority target after engaging in the Fast Friends procedure. Likewise, Moss-Racusin and Rabasco (2018) found that participants in an imagined intergroup contact intervention reported fewer intentions to engage in hiring practices unduly discriminating against transgender applicants. The results of Study 1 suggest that imagined intergroup contact can impact feelings of closeness between a participant and a target transgender individual.

It is noteworthy that this result occurred even with some participants' confusion around the fictional transgender person's gender identity. There are a couple of possible mechanisms to explain this. Perhaps participants working through the feelings of apprehension regarding the target's gender identity in combination with the closeness procedure created feelings of self-other

overlap, even if they were ultimately unsure about the target's gender (McCullough et al., 2019). Alternatively, participants might have simply experienced a secondary transfer effect; they met a fictional individual who felt positively about transgender rights and, determining that they liked this individual, changed their opinion to align more with this new person's (Flores, 2015). The second study was adapted to make the gender identity of the target individual more explicit in an attempt to minimize some of this variation in participant understanding of the target's gender identity. While Study 1 evaluated the impact of the imagined intergroup contact scenario on feelings of self-other overlap, Study 2 was designed to take this further. Study 2 evaluated the impact of the novel imagined intergroup contact scenario on inclusion of other in the self, genderism and transphobia, and contact apprehension toward transgender individuals. The results of Study 1 and previous findings in the literature led to a hypothesis that participants in Study 2 would experience a decrease in genderism and transphobia as well as contact apprehension, but would the same increase in inclusion of other in the self from Study 1.

## CHAPTER 3

## STUDY 2

**Method*****Participants***

A prior study by Moss-Racusin and Rabasco (2017) showed a small effect size in the interaction effect between independent variable levels ( $\eta^2 = .03$ ). Using this interaction effect size in the program WebPower, (2022) it was determined that a minimum of 125 participants were required to complete the study to have an appropriate level of power ( $1 - \beta \geq .80$ ). To counteract attrition and withdrawal, the current research had a goal of recruiting 169 participants. However, due to the time-sensitive nature of a thesis, participant recruitment was stopped on February 10, 2023 (with further collection continuing beyond this paper until the goal of 169 participants is reached).

A sample of undergraduates ( $n = 55$ ) was recruited on a university website which tracks undergraduate participation in research studies and awards them extra credit in participating courses. A total of 15 participants were excluded from analyses for failure to complete the assignment ( $n = 7$ ), recognition of the transgender actor in the imagined contact procedure ( $n = 3$ ), identifying their gender as something other than cisgender ( $n = 3$ ), incorrectly identifying the target's status as a transgender man ( $n = 1$ ), or failure to disclose their age ( $n = 1$ ). After these exclusions, a final group of participants was obtained for data analysis ( $n = 40$ ). These undergraduates were approximately 20 years of age on average ( $M = 19.68$ ,  $SD = 2.21$ ) and consisted of predominantly White ( $n = 24$ ), female ( $n = 26$ ) freshmen ( $n = 19$ ) psychology majors ( $n = 12$ ), similar to the pattern found in Study 1. Participants completed data collection at two

points. The average time between the pre- and post-tests was approximately three days ( $M = 3.16$ ,  $SD = 1.93$ ).

### ***Measures***

**Genderism and Transphobia Scale (GTS).** Participants completed the Genderism and Transphobia Scale (GTS), measuring their attitudes toward transgender individuals versus cisgender individuals. The GTS is the best-known measure of prejudice towards subversive presentation of gender (Morrison et al., 2017) and maintains strong construct validity when used to evaluate the prejudice of non-Western populations (Macapagal, 2013). The GTS is a 32-item questionnaire scored on a seven-point Likert scale. The Likert scale is reverse-scored so that a low score indicates strong agreement with the item (that is, highly prejudiced beliefs) and a high score indicates a strong disagreement with the item (that is, low prejudiced beliefs). All but four of the 32 items are reverse scored in this way. The GTS measures beliefs such as “People are either men or women” as well as behavioral items such as “I have teased a woman because of her masculine appearance and behavior” (Hill & Willoughby, 2005). In the current research, the GTS produced a Cronbach’s alpha of .936 at pre-test and .957 at post-test. Insufficient effort responding on the GTS was reduced by reverse-scoring all but four of the items as well as an attention check item.

**Inclusion of Other in the Self Scale (IOS).** Participants completed a modified version of the IOS (Aron et al., 1992). The IOS was measured on a seven-point Likert scale such that a seven indicates high feelings of self-other overlap and a one indicates low feelings of self-other overlap. Participants were asked, “If ‘X’ represents a transgender individual, which of the following images best represents how similar you think you are to a transgender person?” (Lytle & Levy, 2015). See Study 1 Method for full description of the IOS.



**Contact Apprehension towards Transgender Individuals Scale (CATT).** The final measure of transnegativity was the CATT, pioneered by McCullough et al. (2019). The CATT is a 14-item questionnaire. Answers are given on a five-point Likert scale such that a five indicates high contact anxiety. Items are statements of agreement such as “It would be upsetting for me to find out I was alone with a transgender person” and “Two transgender people holding hands or displaying affection in public is revolting” (McCullough et al., 2019). Four of the items on the measure are reverse-scored to reduce insufficient-effort responding. In the current research, the CATT produced a Cronbach’s alpha of .912 at pre-test and .939 at post-test

**Prejudice towards People with Mental Illness Scale (PPMI).** Because the other measures are high in face validity, the current research included two unrelated measures at both pre- and post-test in an attempt to mitigate the effects of social desirability response. The first was the PPMI. Answers to this measure are given on a nine-point Likert scale such that a nine indicates high levels of prejudice towards people with mental illness. Items are statements of agreement such as “I would find it hard to talk to someone who has a mental illness” or “People with mental illness behave in ways that are unforeseeable” (Kenny et al., 2018). The original PPMI has four subscales of between six and eight questions. To reduce participant fatigue while still allowing for the usefulness of reducing social desirability, only the fear/avoidance and unpredictability subscales were used.

**Motivation to Respond Without Racial Prejudice Scale (MRWP).** The second measure included with the intent of preventing participants from predicting the hypothesis of the research was the MRWP. This scale was modified from a similar scale crafted by Bamberg and Verkuten (2022) measuring prejudice toward immigrants. Answers to this measure are given on a seven-point Likert scale such that a seven indicates high levels of motivation. The first five questions of

the scale measure extrinsic motivation to respond without prejudice, and include statements of agreement such as, “Because of today’s PC (politically correct) standards I try to appear nonprejudiced towards Black people” (Bamberg & Verkuten, 2022). The second five questions of the scale measure intrinsic motivation to respond without prejudice, and include statements of agreement such as, “I attempt to act in nonprejudiced ways towards Black people because it is personally important to me” (Bamberg & Verkuten, 2022).

### *Procedure*

Due to the two-session nature of the study, participants were compensated both with extra credit and with an \$8 Visa gift card after the second session. Extra credit was granted through a university-wide program where undergraduate students can participate in research studies for credit. Sessions occurred in a lab setting on a desktop computer. During the first session, participants completed an informed consent procedure and created an anonymized identifier so that pre- and post-test scores could be matched. Participants then completed a pre-test of the study measures (GTS, IOS, CATT, PPMI, and MWRP) in random order for counterbalancing effects.

During the second session, participants were randomly assigned to one of two conditions. Participants placed into the control condition completed the control procedure contained in Appendix B. Participants assigned to the imagined contact intervention completed an imagined contact procedure similar to that from Study 1; the modifications can be found in Appendix B. All participants then completed the post-test measures. The GTS, IOS, and CATT were presented first, though they appeared randomly. Afterwards, the PPMI and MWRP were presented in random order. Thus, participants received the measures in a counterbalanced manner, but completed the pertinent measures prior to those which are unrelated to this study. Next, participants completed

the demographic questionnaire. Participants then completed a separate survey to receive their financial and SONA credit incentives to ensure no identifiers were present on participants' data.

## Results

To ensure that there were no differences in measures of transnegativity at pre-test between participants in the control group and the imagined contact condition, three independent-samples *t*-tests of the pre-test GTS, CATT, and IOS scores by condition were conducted. The control group ( $n = 22$ ) GTS pre-test scores ( $M = 2.42$ ,  $SD = 0.86$ ) were not significantly different from the imagined contact group ( $n = 18$ ) GTS pre-test scores ( $M = 2.13$ ,  $SD = 0.85$ ),  $t(38) = 1.45$ ,  $p = 0.16$ , Cohen's- $d = 0.34$ . The control group CATT pre-test scores ( $M = 2.10$ ,  $SD = 0.56$ ) were also not significantly different from the imagined contact group ( $M = 1.90$ ,  $SD = 0.72$ ),  $t(38) = 1.00$ ,  $p = 0.32$ , Cohen's- $d = 0.31$ . Finally, the control group IOS pre-test scores ( $M = 2.86$ ,  $SD = 1.78$ ) were not significantly different from the imagined contact group ( $M = 2.50$ ,  $SD = 1.62$ ),  $t(38) = 0.67$ ,  $p = 0.51$ , Cohen's- $d = 0.21$ . These findings support the assumption that random assignment was successfully conducted and that any difference between the two groups at post-test was a result of the intervention as opposed to a failure of random assignment.

All data were analyzed using 2x2 (Test x Intervention) Mixed ANOVA with an  $\alpha = 0.017$  to reduce the Type I error rate. When analyzing the GTS, there was no main effect of test,  $F(1, 38) = 0.08$ ,  $p = 0.80$ ,  $\eta^2_p = 0.002$ ; pre-test scores ( $M = 2.32$ ,  $SEM = 0.14$ ) were similar to post-test scores ( $M = 2.34$ ,  $SEM = 0.15$ ). There was also no effect of intervention,  $F(1, 38) = 2.64$ ,  $p = 0.11$ ,  $\eta^2_p = 0.065$ , such that the imagined contact intervention ( $M = 2.10$ ,  $SEM = 0.21$ ) was similar to the control group ( $M = 2.56$ ,  $SEM = 0.19$ ). There was no interaction,  $F(1, 38) = 1.28$ ,  $p = 0.26$ ,  $\eta^2_p = 0.033$ . The results of this ANOVA are in Table 2; a visualization is available in Figure 2.

When analyzing the CATT, there was no main effect of test,  $F(1, 38) = 0.02, p = 0.88, \eta^2_p = 0.001$ ; pre-test scores ( $M = 2.00, SEM = 0.10$ ) were similar to post-test scores ( $M = 2.01, SEM = 0.12$ ). There was also no effect of intervention,  $F(1, 38) = 1.58, p = 0.21, \eta^2_p = 0.040$ ; the imagined contact intervention ( $M = 1.86, SEM = 0.17$ ) was similar to the control group ( $M = 2.15, SEM = 0.15$ ). There was no interaction,  $F(1, 38) = 1.78, p = 0.19, \eta^2_p = 0.045$ . The results of this ANOVA are in Table 3; a visualization is available in Figure 3.

When analyzing the IOS, there was no main effect of test,  $F(1, 38) = 0.48, p = 0.50, \eta^2_p = 0.012$ ; pre-test scores ( $M = 2.68, SEM = 0.27$ ) were similar to post-test scores ( $M = 2.74, SEM = 0.26$ ). There was also no effect of intervention,  $F(1, 38) = 0.34, p = 0.56, \eta^2_p = 0.009$ . The imagined contact intervention ( $M = 2.56, SEM = 0.39$ ) was similar to the control group ( $M = 2.86, SEM = 0.35$ ). There was no interaction,  $F(1, 38) = 0.48, p = 0.50, \eta^2_p = 0.0012$ . The results of this ANOVA are in Table 4; a visualization is available in Figure 4.

## **Discussion**

In direct contrast to the findings of Study 1 and to the research conducted by Moss-Racusin and Rabasco (2018) and by Lytle and Levy (2015), Study 2 found no significant reduction of transnegative prejudice following the intervention. Participants' CATT, GTS, and IOS scores did not change in either condition. There are several factors that could account for these findings.

A calculation by WebPower (2022) using the effect sizes found in the study run by Moss-Racusin and Rabasco (2018) indicated that, to achieve enough power ( $1 - \beta \geq .80$ ), a sample size of 125 participants was the minimum required. The results observed in this research may be due to the low power inherent in a sample size of 41 participants, as this is less than half of the participants required. It is possible that, after the sample size reaches 169 participants, the current research will show significant findings.

Alternatively, it is possible that the novel intervention is simply ineffective at reducing transnegative beliefs, reducing feelings of contact apprehension, and increasing feelings of self-other overlap in participants. The original Fast Friends Procedure (Aron et al., 1997), upon which this intervention is based, is comprised of a total of 24 questions meant to induce feelings of closeness between two participants. The current study's novel imagined intergroup contact procedure only used four of these 24 questions. It is possible that four questions is inadequate to induce feelings of closeness between participants. If this is the case, then it may be beneficial to revise the imagined intergroup contact procedure to include more of the Fast Friends Procedure in future research in order to see if this is the problem.

## CHAPTER 4

### GENERAL DISCUSSION

The current research sought to create a novel intervention to reduce transnegativity among participants. While an increase in participant IOS scores were shown in Study 1, Study 2 saw no such increase in IOS scores, nor was there a reduction in CATT and GTS scores as hypothesized.

It is possible that the non-significant findings in Study 2 were merely a result of inadequate power; to that end, recruitment and analysis of participants in this project will continue until 169 participants are tested. If the non-significant findings are a function of inadequate power, then the findings of this research will be useful in reducing transnegativity in the future; the current study will further research indicating that imagined contact is useful in reducing aspects of transnegativity (Moss-Racusin & Rabasco, 2018; Orellana et al., 2020). This would be supported by the initial significance of Study 1's findings. Previous research and theory suggest that, if inclusion of other in the self is increased, that familiarity will reduce the contact apprehension that a participant faces and further reduce transnegative thoughts (Davies & Aron, 2016; McCullough et al., 2019). Therefore, if the increase in IOS in Study 1 is reliable, it follows that an expectation of significance in Study 2 is reasonable.

Another possibility is that the success in the implementation of the procedure in Study 1 is a result of social desirability and not a function of the intervention's success. Because the IOS was the only measure used, and it has high face validity, participants may have surmised the hypothesis of Study 1. If this is true, then it is possible that Study 2's findings, even after adequate power is reached, will support that the imagined intergroup contact procedure was inadequate in reducing feelings of transnegativity. If this is the case, it does not mean inherently that transnegativity is unaffected by imagined intergroup contact. The Fast Friends Procedure (Aron et al., 1997), upon

which the imagined intergroup contact procedure is based, is a 24-question procedure intended to induce in-depth conversation among participants to increase feelings of interpersonal closeness. Because the imagined intergroup contact procedure was shortened to only four of these questions, it is possible that there was simply inadequate time for participants to create a bond with the target character. Indeed, Lytle and Levy (2015)'s modified Fast Friends Procedure was a similar length to the original by Aron et al. (1997), indicating that, perhaps, the length is part of the formula for success in this procedure. A brief overview of the written responses that participants gave seems to support this; one participant wrote, "It's hard to fully judge the character on an individual from just the first interaction though so I wouldn't immediately call him a friend here," indicating that the session was simply not long or comprehensive enough for them to create a feeling of friendship with Elliot's character.

The last noteworthy possibility is that there is something functionally different about participants in Study 1 in comparison to Study 2. The Study 2 pre-test scores for the IOS ( $M = 2.71$ ,  $SEM = 0.27$ ) were similar to the scores of the Study 1 IOS post-tests ( $M = 2.42$ ,  $SEM = .23$ ); this could be a function of error or could be an indicator of some qualitative difference between the two sample groups. Because the groups were recruited in different ways, it is possible that participants in Study 2 were already so low in transnegativity that the intervention was not effective due to possible floor effects. If this is the case, then a theoretically stronger intervention might be needed to find a difference among participants.

### **Future Directions**

While the novel imagined intergroup contact intervention developed for the current research is by no means perfect, it does open the door to many exciting uses. Because imagined intergroup contact does not require the presence of members of an actual marginalized group, it

could be beneficial to use in reducing prejudice among communities that have very little diversity due to location. It may be implemented in school and other publicly accessible areas of homogenous communities which would otherwise not have access to opportunities to reduce discrimination rates.

As promising research continues to be produced in the field of transnegativity reduction, it is imperative to keep in mind who is impacted. As transgender people are put at heightened risk of suicide (Staples et al., 2017) and violence (Wirtz, 2020), it is critical that researchers continue to find realistic, meaningful ways to better the lives of the transgender community. More than that, though, research should begin to incorporate the intersections of identities to reduce the prejudices that individuals experience at these intersecting margins. Intersectional oppression is fundamentally and qualitatively different than the oppression that is experienced by individuals who only have one oppressed identity (Steinbugler, 2006); knowing this, it is important for researchers to identify and understand the measures that combat not only aspects of prejudice towards specific identities, but also the aspects of prejudice towards those identities' intersections. The work to study these intersections has already begun (Cho et al., 2013); however, as with any task meant to address a systemic issue, it will take meaningful and intentional changes made by researchers and theorists on all levels.

## **Conclusion**

Though the current research did not find statistically significant results, that does not make research into this field valueless nor meaningless. Prior research has shown the efficacy of imagined contact procedures in reducing prejudice towards an outgroup (Iguarta et al., 2018) and has been extended to prejudice reduction towards transgender members of an outgroup specifically (Moss-Racusin & Rabasco, 2018). The current research may have had inadequate power to detect



an effect of the independent variable, or the intervention itself may not have been strong enough to capture the change that it was created to invoke. In either case, the theoretical basis of this research is sound and should continue to be explored. It is imperative that the research community continues to work to reduce the prejudice that transgender individuals face every day. Research efforts should continue to broaden this work to encapsulate the intersections at which transgender identities exist. Imagined contact allows researchers a venue to explore these prejudices without putting vulnerable populations at risk; that, if nothing else, is a worthy goal.

## REFERENCES

- American Psychological Association. (2020, May 5). *Transgender people, gender identity and gender expression*. American Psychological Association. <https://www.apa.org/topics/lgbtq/transgender>
- Aron, A., Aron, E. N., & Smollan, D. (1992). Inclusion of Other in the Self Scale and the structure of interpersonal closeness. *Journal of Personality and Social Psychology*, *63*, 596–612. <http://dx.doi.org/10.1037/0022-3514.63.4.596>
- Aron, A., Melinat, E., Aron, E. N., Vallone, R. D., & Bator, R. J. (1997). The experimental generation of interpersonal closeness: A procedure and some preliminary findings. *Personality and Social Psychology Bulletin*, *23*(4), 363–377.
- Bamberg, K., & Verkuyten, M. (2022). Internal and external motivation to respond without prejudice: A person-centered approach. *The Journal of Social Psychology*, *162*(4), 435–454. <https://doi.org/10.1080/00224545.2021.1918498>
- Cho, S., Crenshaw, K. W., & McCall, L. (2013). Toward a field of intersectionality studies: Theory, application, and praxis. *Signs*, *38*(4), 785–810. <https://doi.org/10.1086/669608>
- Conron, K. J., & Goldberg, S. K. (2020). Adult LGBT population in the United States [Infographic]. UCLA.edu. <https://williamsinstitute.law.ucla.edu/wp-content/uploads/LGBT-Adult-US-Pop-Jul-2020.pdf>
- Crisp, R. J., Stathi, S., Turner, R. N., & Husnu, S. (2008). Imagined intergroup contact: Theory, paradigm, and practice. *Social and Personality Psychology Compass*, *2*(2008). DOI: 10.1111/j.1751-9004.2008.00155.x

- Davies, K., & Aron, A. (2016). Friendship development and intergroup attitudes: The role of interpersonal and intergroup friendship processes. *Journal of Social Issues, 72*(3), 489–510. DOI: 10.1111/josi.12178
- Flores, A. (2015). Attitudes towards transgender rights: Perceived knowledge and secondary interpersonal contact. *Politics, Groups, and Identities, 3*(3), 398–416. <http://dx.doi.org/10.1080/21565503.2015/1050414>
- Hill, D. B., & Willoughby, B. L. B. (2005). The development and validation of the Genderism and Transphobia Scale. *Sex Roles, 53*(7/8), 531–544. DOI: 10.1007/s11199-005-7140-x
- Hope, D. A., Woodruff, N., & Mocarski, R. (2020). Advocacy opportunities from academic-community partnerships: Three examples from trans collaborations. *The Behavior Therapist, 43*(7), 247–250.
- Hoffarth, M. R., & Hodson, G. (2018). When intergroup contact is uncommon and bias is strong: The case of anti-transgender bias. *Psychology & Sexuality, 9*(3), 237–250. <https://doi.org/10.1080/19419899/2018/1470107>
- Iguarta, J., Wojcieszak, M., & Kim, N. (2018). How the interplay of imagined contact and first-person narratives improves attitudes towards stigmatized immigrants: A conditional process model. *European Journal of Social Psychology, 49*, 385–397. <http://doi.org/10.1002/ejsp.2509>
- Kenny, A., Bizumic, B., & Griffiths, K. (2018). The Prejudice towards People with Mental Illness (PPMI) scale: Structure and validity. *BMC Psychiatry, 18*(293), 1–13. <https://doi.org/10.1186/s12888-018-1871-z>

- King, M., Winter, S., & Webster, B. (2009). Contact reduces transprejudice: A study on attitudes towards transgenderism and transgender civil rights in Hong Kong. *International Journal of Sexual Health, 21*, 17–34. DOI: 10.1080/19317610802434609
- Lytle, A., & Levy, S. R. (2015). Reducing heterosexuals' prejudice towards gay men and lesbian women via an induced cross-orientation friendship. *Psychology of Sexual Orientation and Gender Diversity, 2*(4), 447–455. <http://dx.doi.org/10.1037/sgd0000135>
- Macapagal, R. A. (2013). Further validation of the Genderism and Transphobia Scale in the Philippines. *Philippine Journal of Psychology, 46*(2), 49–59.
- McCullough, R., Dispenza, F., Chang, C. Y., & Zeligman, M. R. (2019). Correlates and predictors of anti-transgender prejudice. *Psychology of Sexual Orientation and Gender Diversity, 6*(3), 359–368. <http://dx.doi.org/10.1037/sgd0000334>
- McDermott, D. T., Brooks, A. S., Rohleder, P., Blair, K., Hoskin, R. A., & McDonagh, L. K. (2018). Ameliorating transnegativity: Assessing the immediate and extended efficacy of a pedagogic prejudice reduction intervention. *Psychology & Sexuality, 9*(1), 69–85. <https://doi.org/10.1080/19419899.2018.1429487>
- Morrison, M. A., Bishop, C. J., Gazzola, S. B., McCutcheon, J. M., Parker, K., & Morrison, T. G. (2017). Systematic review of the psychometric properties of transphobia scales. *International Journal of Transgenderism, 18*(4), 395–410. <http://dx.doi.org/10.1080/15532739.2017.1332535>
- Moss-Racusin, C. A., & Rabasco, (2018). Reducing gender identity bias through imagined intergroup contact. *Journal of Applied Social Psychology, 2018*(48), 457–474. DOI: 10.1111/jasp.12525

- Meyer, I. H. (2015). Resilience in the study of minority stress and health of sexual and gender minorities. *Psychology of Sexual Orientation and Gender Diversity*, 2(3), 209–213. <http://dx.doi.org/10.1037/sgd0000132>
- Orellana, L., Totterdell, P., & Iyer, A. (2020). The association between transgender-related fiction and transnegativity: Transportation and intergroup anxiety as mediators. *Psychology & Sexuality*. <https://doi.org/10.1080/19419899.2020.1759677>
- Pettigrew, T. F. (1998). Intergroup contact theory. *The Annual Review of Psychology*, 49, 65–85. DOI: 0066-4308/98/0201-0065\$08.00
- Pixabay. (2022, May 1). *Stunning free images & royalty free stock*. Pixabay. <https://www.pixabay.com/>
- Schuhl, J., Lambert, E., & Chatard, A. (2019). Can imagination reduce prejudice over time? A preregistered test of the imagined contact hypothesis. *Basic and Applied Social Psychology*, 41(2), 122–131. <https://doi.org/10.1080/01973533.2019.1579719>
- Staples, J. M., Neilson, E. C., Bryan, A. E. B., & George, W. H. (2017). The role of distal minority stress and internalized transnegativity in suicidal ideation and nonsuicidal self-injury among transgender adults. *The Journal of Sex Research*, 55(4-5), 591–603. DOI: 10.1080/00224499.2017.1393651
- Steinbugler, A. C., Press, J. E., & Johnson Dias, J. (2006). Gender, race, and Affirmative Action: Operationalizing intersectionality in survey research. *Gender and Society*, 20(6), 805–825. <https://doi.org/10.1177/0891243206293299>
- Tebbe, A. E., Moradi, B., & Ege, E. (2014). Revised and abbreviated forms of the Genderism and Transphobia Scale: Tools for assessing anti-trans\* prejudice. *Journal of Counseling Psychology*, 61(4), 581–592. <http://dx.doi.org/10.1037/cou0000043>

- Turner, R. N., Hewstone, M., & Voci, A. (2007). Reducing explicit and implicit outgroup prejudice via direct and extended contact: The mediating role of self-disclosure and intergroup anxiety. *Journal of Personality and Social Psychology*, *93*(3), 369–388. DOI: 10.1037/0022-3514.93.3.369
- WebPower. (2022, August 15). Two-way, three-way, and k-way ANOVA. WebPower: Statistical power analysis online. <https://webpower.psychstat.org/models/means04/>
- Whitney, E. O. (2017, June 23). *Don't ask 'Shameless' star Elliot Fletcher about his backstory*. Scencrush. <https://screencrush.com/elliott-fletcher-interview-our-hollywood/>
- Wirtz, A. L., Poteat, T. C., Malik, M., & Glass, N. (2020). Gender-based violence against transgender people in the United States: A call for research and programming. *Trauma, Violence, & Abuse*, *21*(2), 227–241. <https://doi.org/10.1177/1524838018757749>

**Table 1***Mixed-Factor ANOVA Results Using IOS Scores from Study 1 as a Criterion*

Source	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2_p$
Between-subjects effects				
Condition	1	135.812	<0.001	0.764
Error (condition)	42			
Within-subjects effects				
Test	1	6.133	0.017	0.127
Test*condition	1	6.133	0.017	0.127
Error (test)	42			

**Table 2***Mixed-Factor ANOVA Results Using GTS Scores from Study 2 as a Criterion*

Source	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2_p$
Between-subjects effects				
Condition	1	2.64	0.11	0.065
Error (condition)	38			
Within-subjects effects				
Test	1	0.08	0.80	0.002
Test*condition	1	1.28	0.26	0.033
Error (test)	38			



**Table 3***Mixed-Factor ANOVA Results Using CATT Scores from Study 2 as a Criterion*

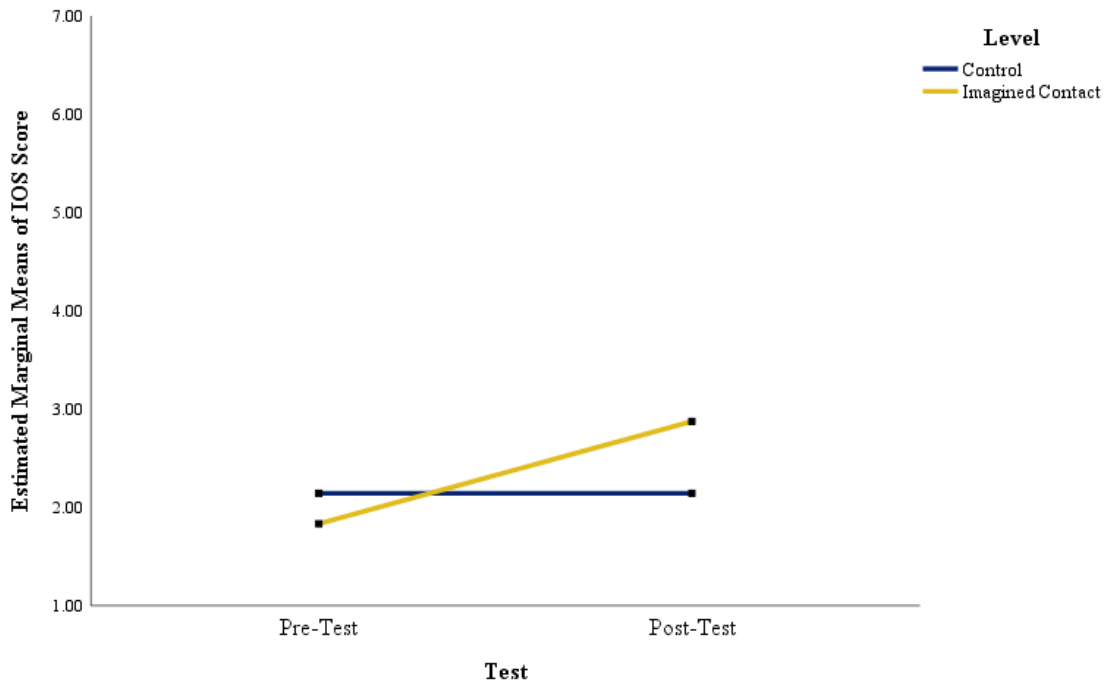
Source	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2_p$
Between-subjects effects				
Condition	1	1.60	0.21	0.040
Error (condition)	38			
Within-subjects effects				
Test	1	0.02	0.88	0.001
Test*condition	1	1.79	0.19	0.045
Error (test)	38			

**Table 4***Mixed-Factor ANOVA Results Using IOS Scores from Study 2 as a Criterion*

Source	<i>df</i>	<i>F</i>	<i>p</i>	$\eta^2_p$
Between-subjects effects				
Condition	1	0.34	0.56	0.009
Error (condition)	38			
Within-subjects effects				
Test	1	0.48	0.50	0.012
Test*condition	1	0.48	0.50	0.012
Error (test)	38			

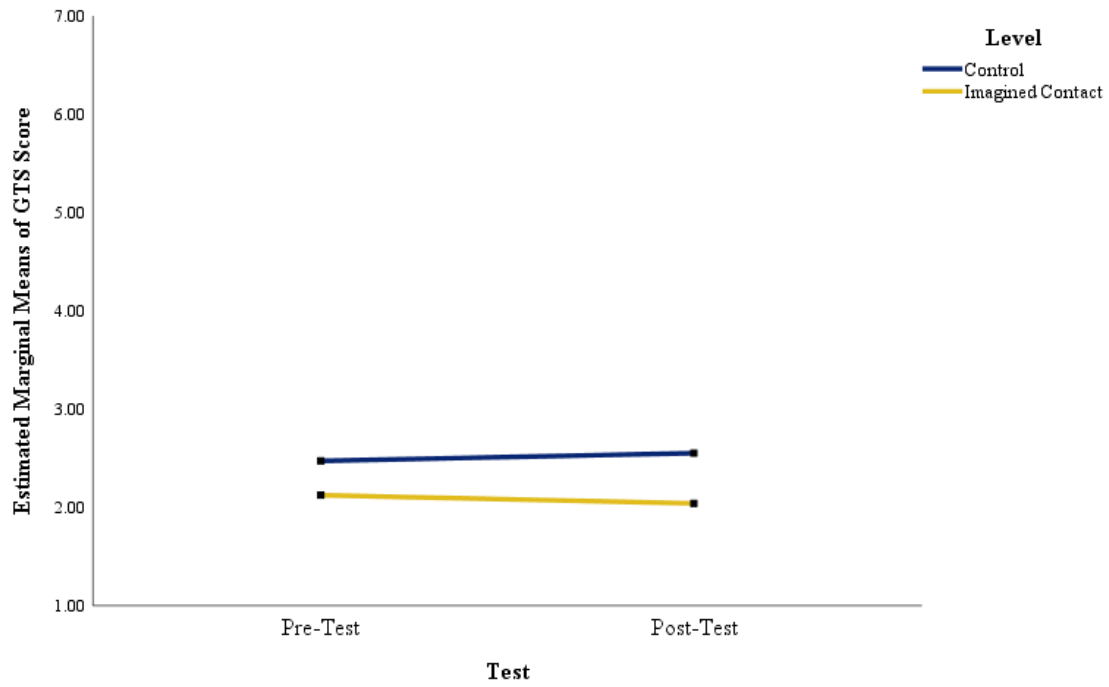
**Figure 1**

*Comparison of Marginal Means for the IOS Pre- and Post-Tests of Study 1 by Condition*



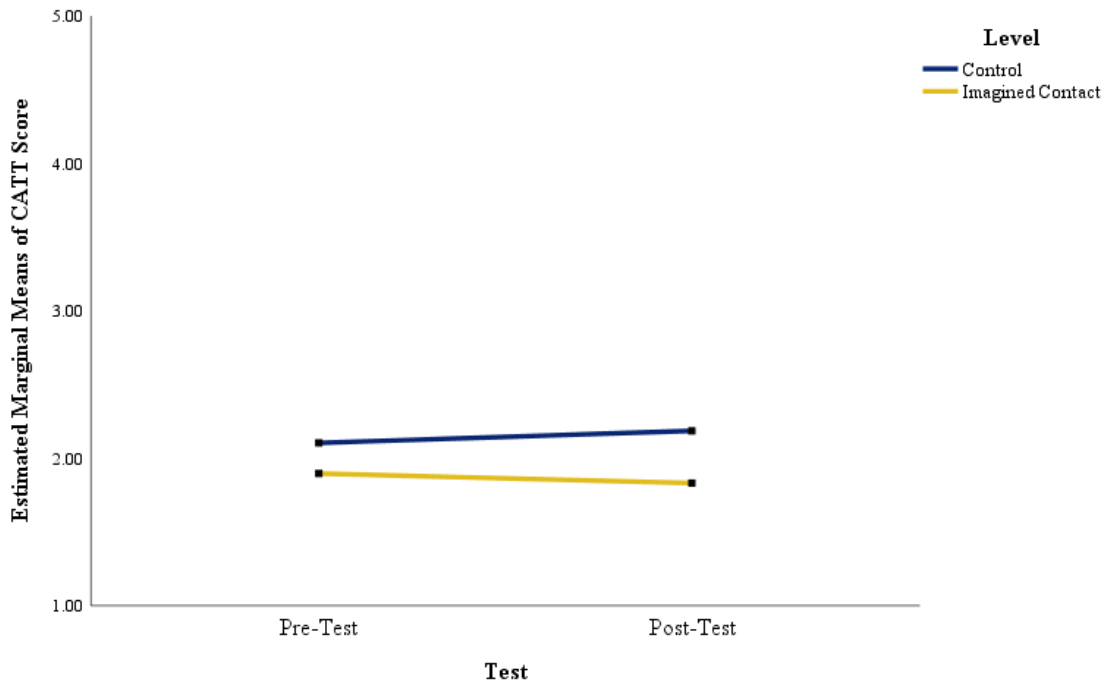
**Figure 2**

*Comparison of Marginal Means for the GTS Pre- and Post-Tests of Study 2 by Condition*



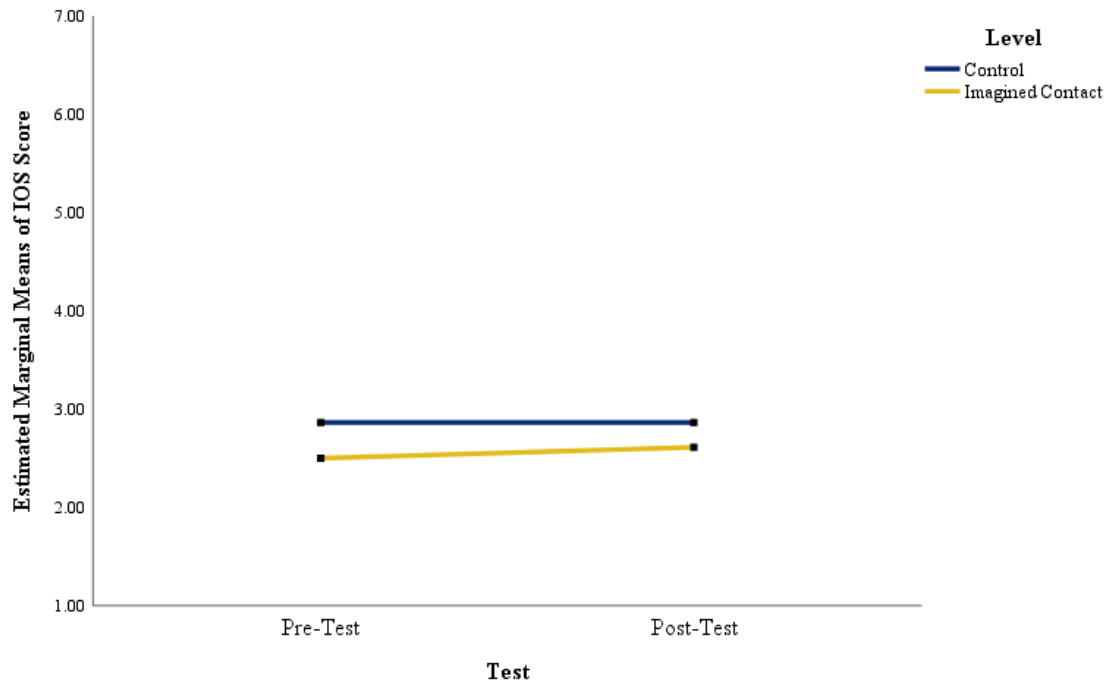
**Figure 3**

*Comparison of Marginal Means for the CATT Pre- and Post-Tests of Study 2 by Condition*



**Figure 4**

*Comparison of Marginal Means for the IOS Pre- and Post-Tests of Study 2 by Condition*



## APPENDIX A

## IMAGINED INTERGROUP CONTACT PROCEDURE – STUDY 1 EDITION

**Instructions:**

You are about to participate in a guided visualization exercise. The scenes will be told in the format of a story. There will be opportunities for you to give free-response answers. There is no right answer to these. The goal with this story and these free-response answers is to let you focus on the experience; you are not being graded. The only good answer is one that you took your time creating; there are no bad answers. Take your time when reading this exercise; focus on the five senses (touch, sight, hearing, taste, and smell). When you give your answers, take your time to check-in with your emotional reaction and let that inform your responses.

We would like you to take some time imagining the following scenario.

Imagine that you are a college student in your first day of classes in a new semester. You go into one of your classes and are informed that your first assignment is a project that must be done in assigned pairs. The instructor suggests that you become good friends with your assigned partner, because this project will be worth a significant portion of your grade. The instructor gives you a series of icebreaker questions to answer with your partner so that you can better know each other.







This is your assigned partner. When he sees you, he smiles and holds out his hand to shake. “Hi! My name is Elliot! What’s your name?”

What do you tell him your name is?

---

As you settle down, you notice that he has a pink, blue, and white striped patch on his backpack.



The flag is the transgender flag.



A transgender person is a person who does not identify with the gender that they were assigned at birth. In other words, it is someone who was identified by doctors as one gender when they

were born, and who does not feel like that identity is correct.

The instructor puts up a question on the board and gives you a few minutes to talk to your partners about it. The first question is: **Before you make a telephone call, do you ever rehearse what you're going to say? Why?**



Elliot laughs at this question. “I absolutely rehearse what I’m going to say when I make calls!” he admits. “I get a little bit nervous. What about you?”

What do you tell Elliot?

---

When the classroom seems to be done answering that question, the instructor calls your attention back to the board and puts up a second question. The new question is: **Is there something you've dreamt about doing for a long time? Why haven't you done it?**



Elliot says, “Honestly, I’ve always wanted to travel the world! I haven’t had a chance yet, because of school. I’m thinking about taking advantage of the study abroad program to make it happen, though!” He looks excited at the thought, and then turns his attention to you. “What about you? What’s something you’ve wanted to do and haven’t done?”

What do you tell him?

---

When it seems that everyone has finished answering the question, the instructor calls your attention back to the board and puts up a third question. The new question is: **What is your most treasured memory?**



Elliot says, “My most treasured memory is meeting my little sister for the first time. I was eight when she was born, and I remember being amazed at how tiny she was. She’s been supportive of me in all of my big life changes. I’m really thankful for her.” He laughs. “What

about you? What’s your most treasured memory?”

What do you tell Elliot?

---

When the instructor deems that you have had enough time to discuss the question, they call your attention to the screen. They put up a fourth question to discuss: **Tell your partner something that you like about them already.**



Elliot says, “I feel like you’ve really been listening to me this whole time. That’s a good thing in a project partner, I think.” He waits for you to tell him something that you like about him.

What do you tell him?

---

The icebreaker is over, and the teacher calls your attention to the front one final time to dismiss you. Elliot asks for your phone number and offers his own. He says, “Thanks for talking! Do you want to get coffee some time?”

You agree, and head on your way.

What are your parting thoughts about Elliot and your interactions with him?

---

## APPENDIX B

## IMAGINED INTERGROUP CONTACT PROCEDURE – STUDY 2 EDITION

**Instructions:**

You are about to participate in a guided visualization exercise. The scenes will be told in the format of a story. There will be opportunities for you to give free-response answers. There is no right answer to these. The goal with this story and these free-response answers is to let you focus on the experience; you are not being graded. The only good answer is one that you took your time creating; there are no bad answers. Take your time when reading this exercise; focus on the five senses (touch, sight, hearing, taste, and smell). When you give your answers, take your time to check-in with your emotional reaction and let that inform your responses.

We would like you to take some time imagining the following scenario.



Imagine that you are a college student in your first day of classes in a new semester. You go into one of your classes and are informed that your first assignment is a project that must be done in assigned pairs. The instructor suggests that you become good friends with your assigned partner, because this project will be worth a significant portion of your grade. The instructor gives you a series of icebreaker questions to answer with your partner so that you can better know each other.





This is your assigned partner. When he sees you, he smiles and holds out his hand to shake. “Hi! My name is Elliot! This is a pretty weird way to start a class, I think.” He laughs. “What’s your name?”

You tell him your name. What do you think about this way to introduce the class? Share your thoughts in 2–5 complete sentences.

---

As you settle down, you notice that he has a pink, blue, and white striped patch on his backpack.



You ask him what it is.



“Oh!” he says. “That’s the transgender flag. I

have it because I’m a transgender man. That

means that when I was born, the doctor thought

that I was a girl. I grew up and realized that I’m

actually a man, and now I’m taking some steps to transition, like taking medications and getting other gender-affirming care.”

The instructor puts up a question on the board and gives you a few minutes to talk to your partners about it. The first question is: **Before you make a telephone call, do you ever rehearse what you're going to say? Why?**



Elliot laughs at this question. “I absolutely rehearse what I’m going to say when I make calls!” he admits. “I get a little bit nervous. What about you?”

What do you tell Elliot? Answer in 2–5 complete sentences.

---

When the classroom seems to be done answering that question, the instructor calls your attention back to the board and puts up a second question. The new question is: **Is there something you've dreamt about doing for a long time? Why haven't you done it?**



Elliot says, “Honestly, I’ve always wanted to travel the world! I haven’t had a chance yet, because of school. I’m thinking about taking advantage of the study abroad program to make it happen, though!” He looks excited at the thought, and then turns his attention to you. “What about you? What’s something you’ve wanted to do and haven’t done?”

What do you tell him? Answer in 2–5 complete sentences.

---

When it seems that everyone has finished answering the question, the instructor calls your attention back to the board and puts up a third question. The new question is: **What is your most treasured memory?**



Elliot says, “My most treasured memory is meeting my little sister for the first time. I was eight when she was born, and I remember being amazed at how tiny she was. She’s been supportive of me in all of my big life changes. I’m really thankful for her.” He laughs. “What

about you? What’s your most treasured memory?”

What do you tell Elliot? Answer in 2–5 complete sentences.

---

When the instructor deems that you have had enough time to discuss the question, they call your attention to the screen. They put up a fourth question to discuss: **Tell your partner something that you like about them already.**



Elliot says, “I feel like you’ve really been listening to me this whole time. That’s a good thing in a project partner, I think.” He waits for you to tell him something that you like about him.

What do you tell him? Answer in

2–5 complete sentences.

---

The icebreaker is over, and the teacher calls your attention to the front one final time to dismiss you. Elliot asks for your phone number and offers his own. He says, “Thanks for talking! Do you want to get coffee some time?”

You agree, and head on your way.

What are your parting thoughts about Elliot and your interactions with him? Answer in 2–5 complete sentences.

---



## APPENDIX C

## CONTROL PROCEDURE – STUDY 2 EDITION

**Instructions:**

You are about to participate in a guided visualization exercise. The scenes will be told in the format of a story. There will be opportunities for you to give free-response answers. There is no right answer to these. The goal with this story and these free-response answers is to let you focus on the experience; you are not being graded. The only good answer is one that you took your time creating; there are no bad answers. Take your time when reading this exercise; focus on the five senses (touch, sight, hearing, taste, and smell). When you give your answers, take your time to check-in with your emotional reaction and let that inform your responses.

We would like you to take some time imagining the following scenario.

Imagine that you are a college student in your first day of classes in a new semester. You go into one of your classes and are informed that your first assignment is a project on self-knowledge. The instructor suggests that you become familiar with your own thoughts and feelings, because this project will be worth a significant portion of your grade. The instructor gives you a series of questions to answer so that you can better know yourself.





It is your first day of class,  
and you're already doing  
something that's a little bit  
new.

What do you think about this  
way to introduce the class?

Share your thoughts in 2–5

complete sentences.

---



The instructor puts up a question on the board and gives you a few minutes to think about it and write down your answers. The first question is: **Before you make a telephone call, do you ever rehearse what you're going to say? Why?**

Answer in 2–5 complete sentences.

---

When the classroom seems to be done answering that question, the instructor calls your attention back to the board and puts up a second question. The new question is: **Is there something you've dreamt about doing for a long time? Why haven't you done it?**



There are rustles as your peers get to writing down their answers to the question. What do you tell write down? Answer in 2–5 complete sentences.

When it seems that everyone has finished answering the question, the instructor calls your attention back to the board and puts up a third question. The new question is: **What is your most treasured memory?**



What do you write down?

Answer in 2–5 complete sentences.

---

When the instructor deems that you have had enough time to answer the question, they call your attention to the screen. They put up a fourth question to discuss: **Tell your instructor something that you're excited about for this class already.**



What do you write down?

Answer in 2–5 complete sentences.

The journaling session is over, and the teacher calls your attention to the front one final time to dismiss you. “Alright, class, don’t forget to look over chapter 1 of the textbook. Email me with any question!”

You agree, and head on your way.

What are your parting thoughts about this class and the project that you are going to do? Answer in 2–5 complete sentences.

---



APPENDIX D  
COMPREHENSION CHECK

Comprehension Questions

During your research participation, you read about a college student named Elliot.

1. What type of patch did Elliot have on his backpack? \_\_\_\_\_
2. What was Elliot's gender identity? \_\_\_\_\_