



# Biases and Their Impact on Opinions of Transgender Bathroom Usage

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## Introduction

- **48%** of Americans believe that transgender people should use the bathroom that corresponds to their sex assigned at birth (Gallup, 2017).
- Arguments surrounding the support of bathroom bills often lack scientific support.
- People evaluate arguments of persuasive messages significantly more favorably if the arguments support pre-existing attitudes (Lord, Ross, & Lepper, 1979; Munro & Ditto, 1997).
  - There may be individual differences that would mediate the biases found in previous research
  - This research focuses on the potential of open-mindedness to reduce biases
  - We also investigated narcissism and scientific reasoning

## Participants

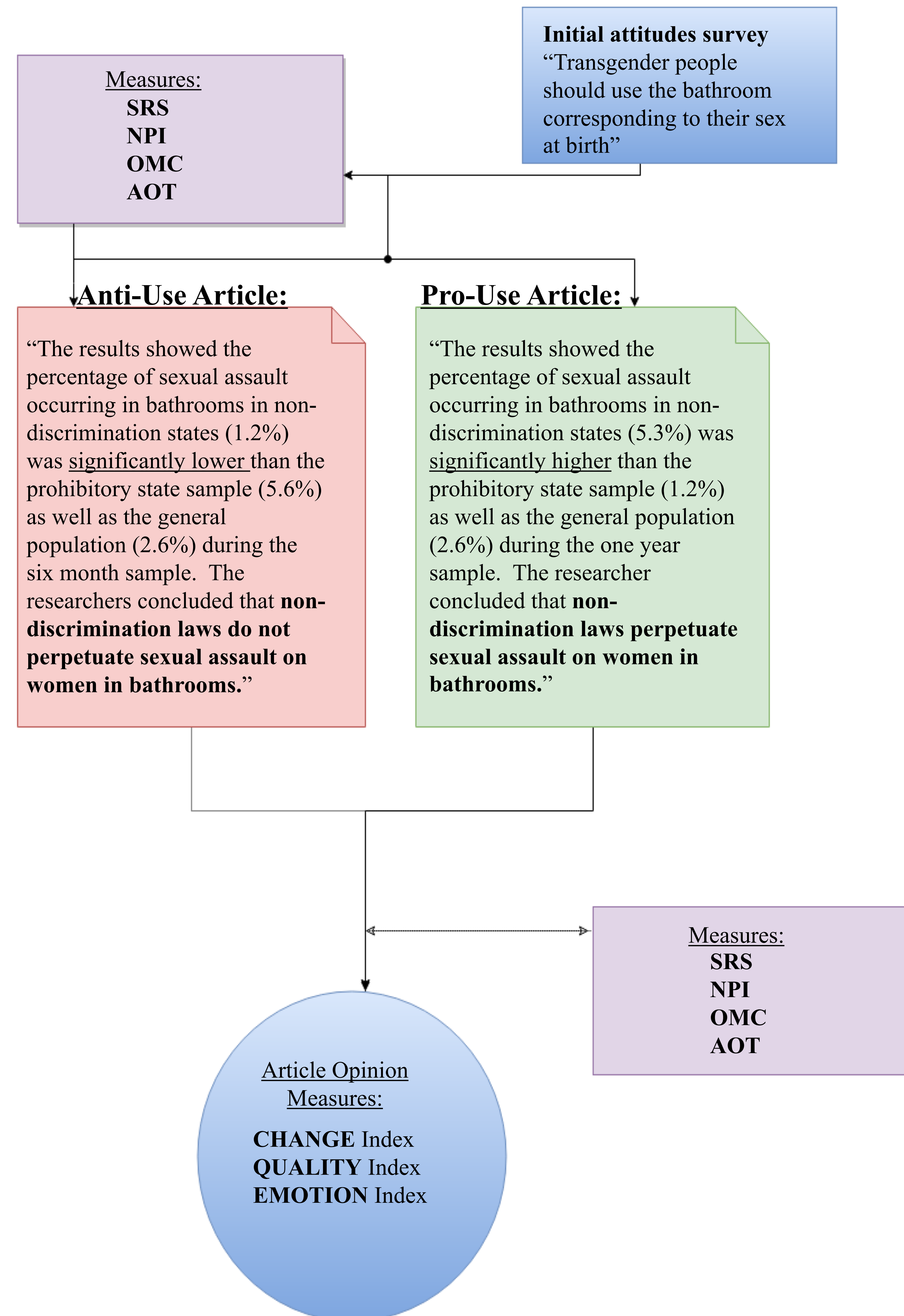
- N* = 260 Ages 18 to 71 (*M* = 22, *SD* = 9.38):
- **80% Female**, 18.8% as Male, 0.8% choose not to identify, 0.4% “Other”.
  - **66% White/European-American**, 18.1% Black/African-American, 7.5% Asian/Asian-American, 3.5% Latina/o/Hispanic, and 5% Mixed/Biracial
  - Recruited using Towson University’s Research Pool website as and through multiple internet portals.

## Measures

- Scientific Reasoning Scale [SRS]:** (Drummond & Fischhoff, 2015)
- Narcissism Personality Index Scale [NPI]:** (Raskin & Hall, 1979)
- Open-Minded Cognition Scale [OMC]:** (Price, Ottati, Wilson, & Kim, 2015)
- Active Open-Minded Thinking Scale [AOT]:** (Stanovich & West, 2007)
- Fake scientific article:** *opposed* or *supported* transgender bathroom use consistent with gender identity regardless of assigned sex at birth
- Emotion and Article Opinion Measures** (Munro & Ditto, 1997)



## Procedure:



## Results:

### Mismatch

IV	Multivariate Regression Results
OMC	0.368 (0.196)
AOT	0.367 (0.238)
SRS	-0.154* (0.074)
NPI	0.017 (0.031)
Observations	104
R-squared	0.112
F	3.167

### Match

IV	Multivariate Regression Results
OMC	0.098 (0.164)
AOT	0.442* (0.194)
SRS	0.073 (0.065)
NPI	-0.026 (0.024)
Observations	101
R-squared	0.118
F	3.250

DV: Quality Index  
Standard errors in parenthesis  
\* $p < 0.05$

## Conclusions

- A 2 (match: article congruent x article incongruent) x 2 (attitude: pro-transgender rights vs. anti-transgender rights) between-groups factorial ANOVA was conducted on the index measuring participants’ perceptions of the quality of the article. Replicating past research (Lord et al., 1979; Munro & Ditto, 1997), participants evaluating a study congruent with their pre-existing attitudes evaluated it more favorably ( $M = 6.12$ ,  $SD = 1.54$ ) than participants evaluating a study incongruent with their pre-existing attitudes ( $M = 5.50$ ,  $SD = 1.80$ ),  $F(1, 204) = 5.46$ ,  $p = .02$ ,  $\eta^2 = .03$ .
- Higher levels of **Scientific Reasoning** predicts stronger aversion to information that is incongruent with pre-existing opinions.
- Bias reduction is necessary to function in a world where scientific facts are called into question on a consistent basis, therefore this study attempted to isolate distinct characteristics that may be influencing biased assimilation
- **Open-mindedness** can potentially lead to a less biased view of others’ opinions

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