



How do variations in belonging intervention frameworks influence potential differences in student experiences related to belonging, efficacy, and academic success?

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Introduction

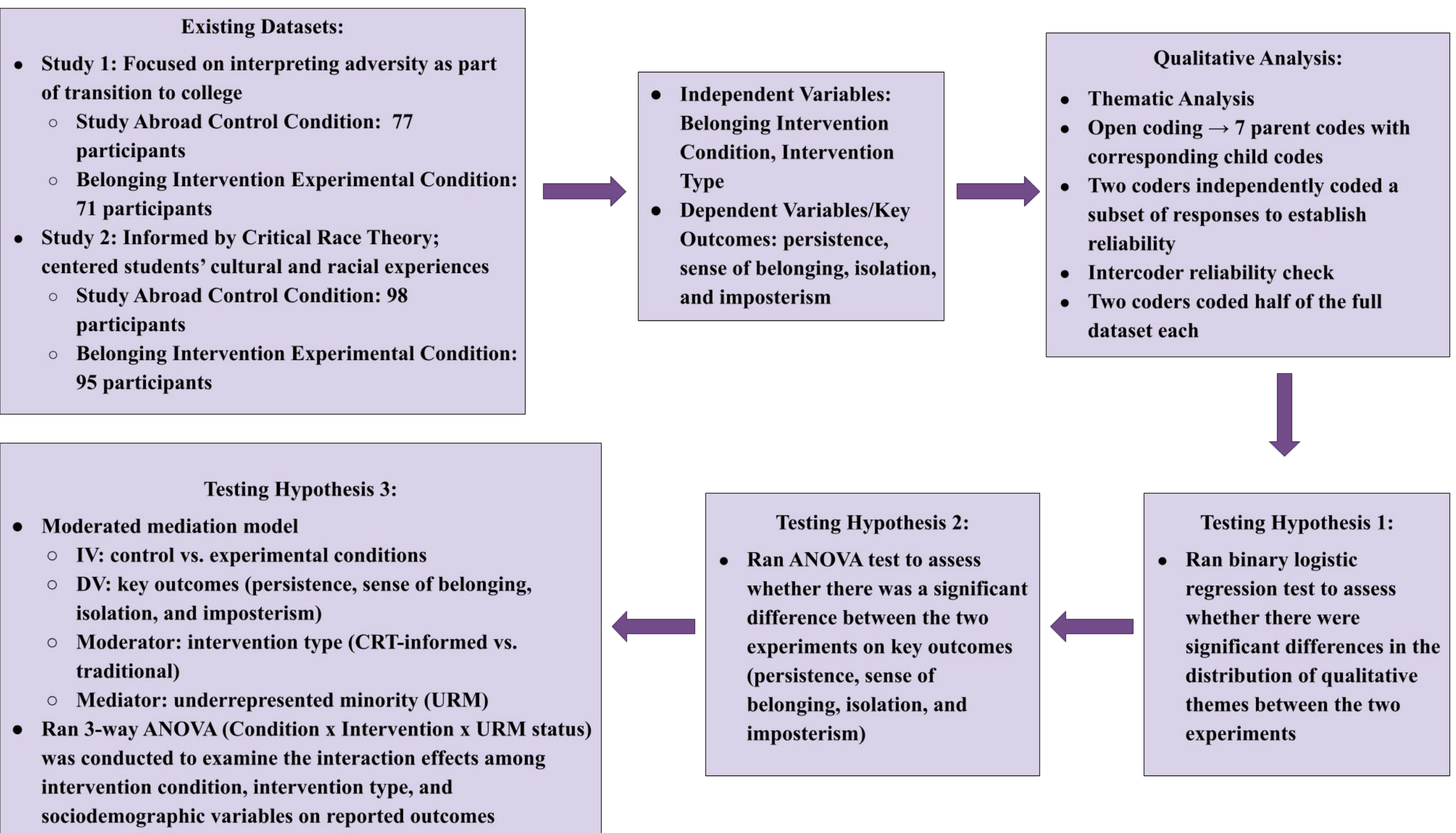
- Social belonging is crucial for academic success and well-being; students who feel connected to their campus community tend to show higher levels of academic engagement and demonstrate greater persistence in their academic endeavors (Ellison & Braxton, 2022).
- Marginalized students, particularly BIPOC students, often face challenges like racial microaggressions, stereotyping, and isolation (Lui et al., 2020; Williams et al., 2019; Zirkel, 2004). These experiences can negatively affect their sense of belonging, leaving them feeling disconnected from campus culture or unsure of their standing in the academic community.
- Belonging interventions are structured exercises or readings designed to help individuals feel a greater sense of connection and acceptance in academic settings (Walton & Cohen, 2011). They help students see academic challenges and social difficulties as normal and temporary obstacles that everyone faces, rather than indications that they are incapable and do not belong.
- This project analyzed two different belonging intervention studies:
 - Traditional Belonging Intervention Study: intervention focused on themes of fostering meaningful social connections, normalizing academic struggles, and encouraging resilience in the face of adversity
 - CRT-informed Belonging Intervention Study: intervention was revised to reflect inclusion of student identities and was informed by Critical Race Theory (CRT); it centered on narratives that highlighted the racialized experiences of BIPOC students
- Although the two studies were not initially designed to be compared, the availability of both datasets allowed for a natural comparison between the two experiments, offering insights into how the different frameworks of the belonging interventions impact students' success outcomes.

Key Research Questions

- 1) What differences exist in the qualitative themes present in the open-ended responses of students based on whether they read the intervention that were informed by critical race theory or the intervention that focused on typical belonging intervention themes?
- 2) How do the outcomes differ between the two experiments regarding persistence, sense of belonging, isolation, and imposterism?
- 3) How do sociodemographic factors such as race/ethnicity and first generation status influence students' reported outcomes in persistence, sense of belonging, isolation, and imposterism across the two experiments?

Methods

- Participants:
 - Traditional Belonging Intervention Study: 148 participants attending an R1 west-coast university 38.7% URM*, 61.3% not URM, 36.4% first-generation
 - *URM defined by university as Black, Indigenous, & Latinx
 - Critical Race Theory-Informed Belonging Intervention Study: 193 participants attending an R1 west-coast university



Results

Figure A: Differences in Qualitative Themes by Experimental Condition

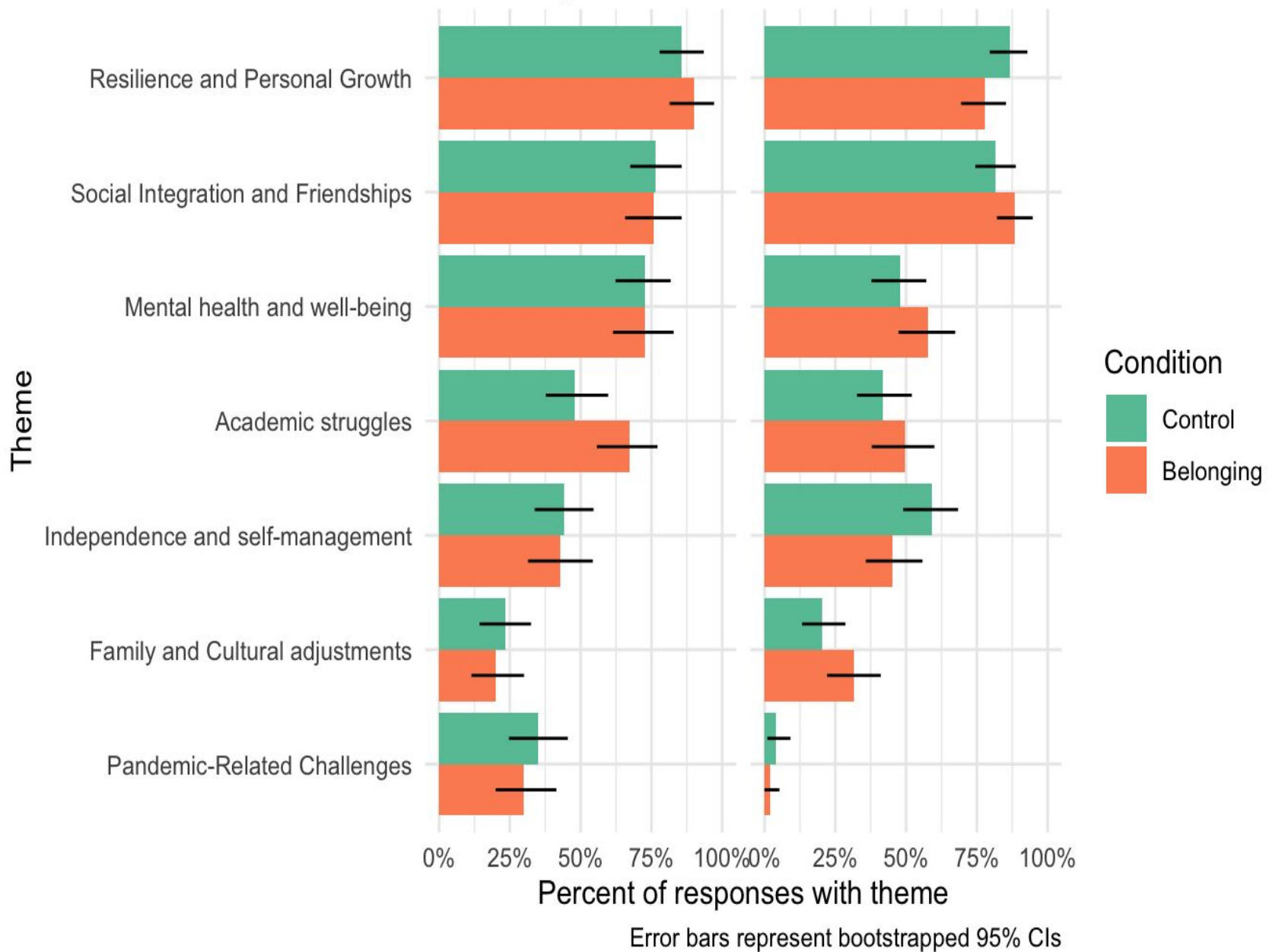


Figure B: Differences in Outcomes by Experimental Condition

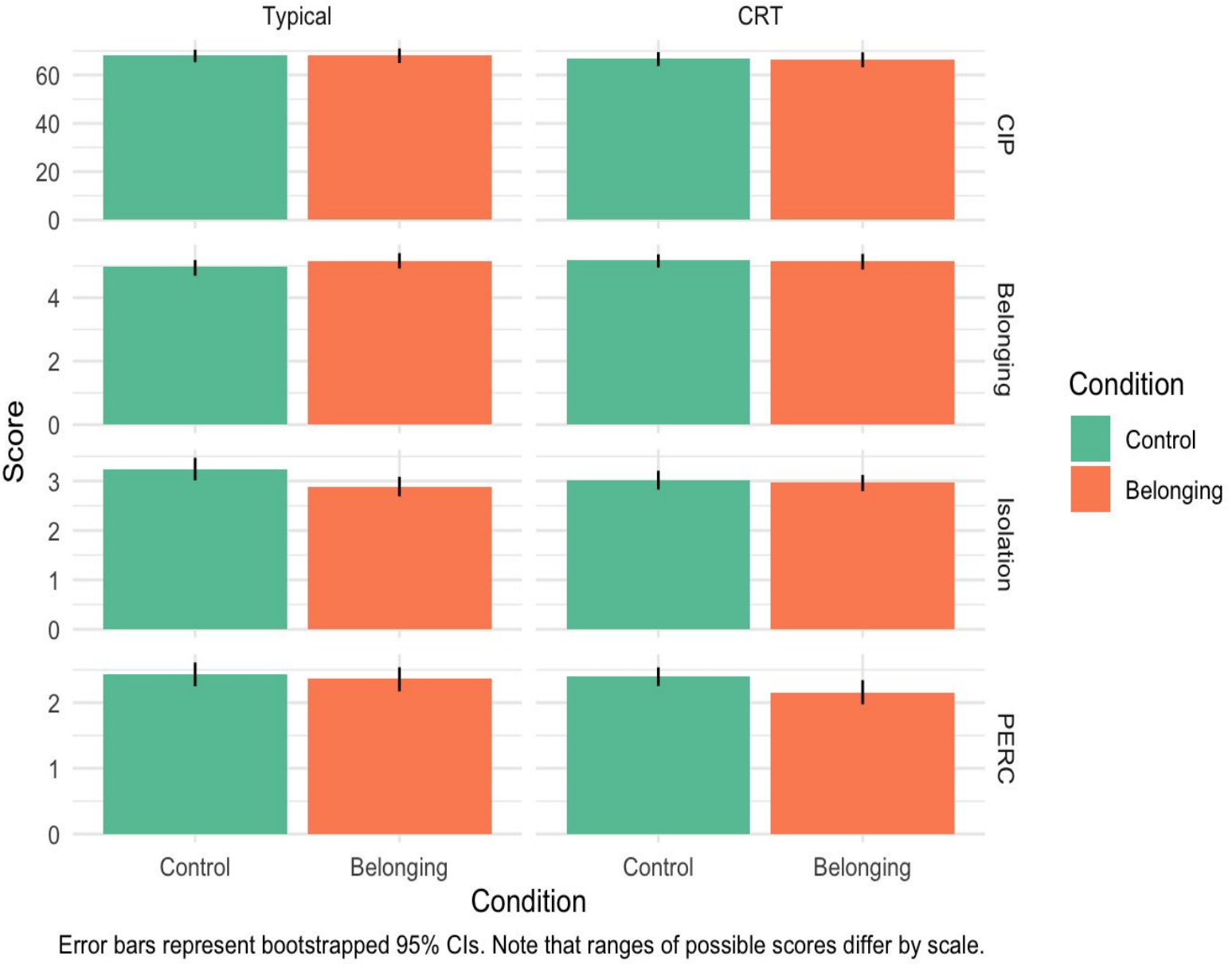


Figure C: Differences in Belonging by Condition, Experiment, and URM Status

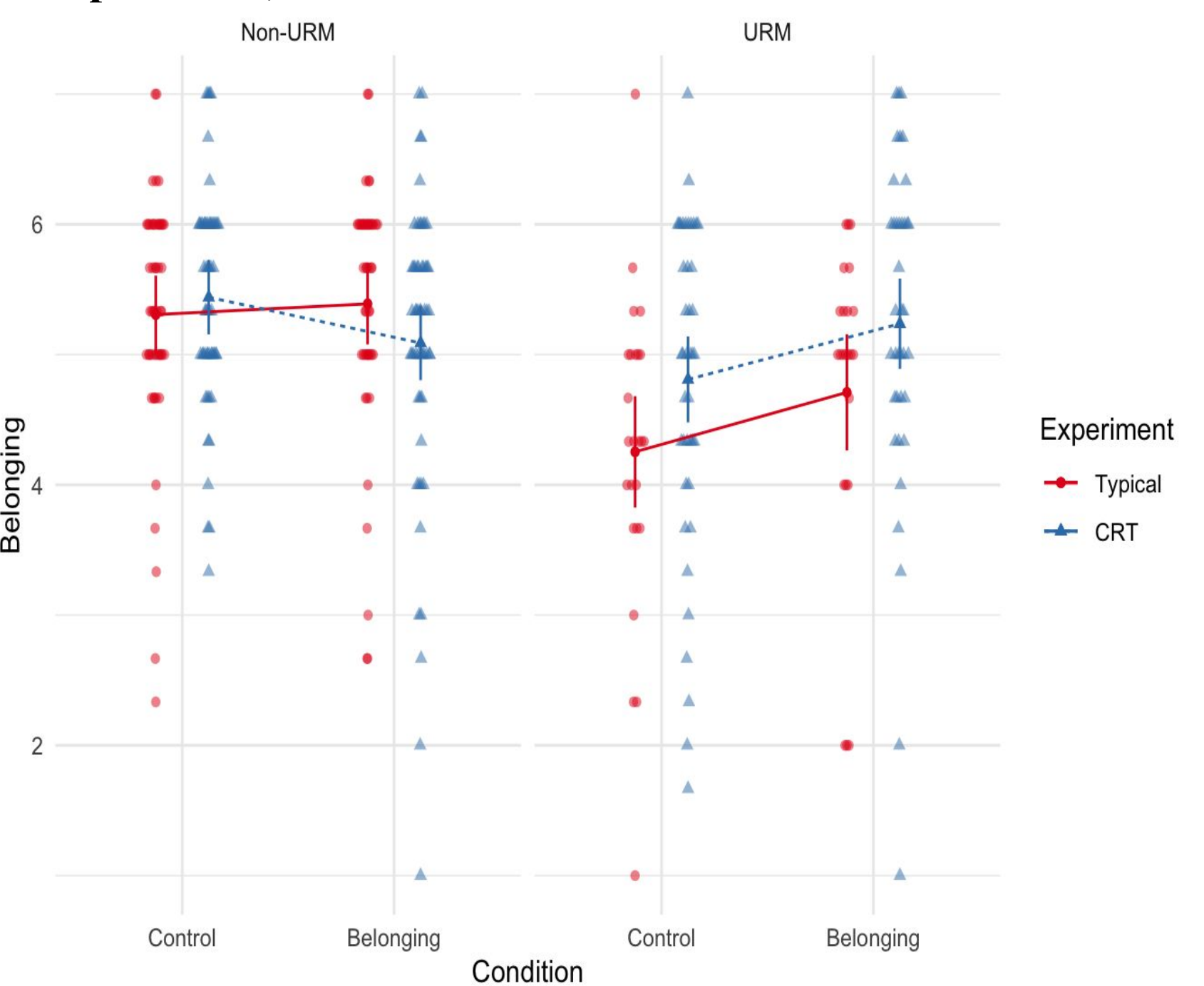


Figure D: Differences in Imposterism by Condition, Experiment, and URM Status

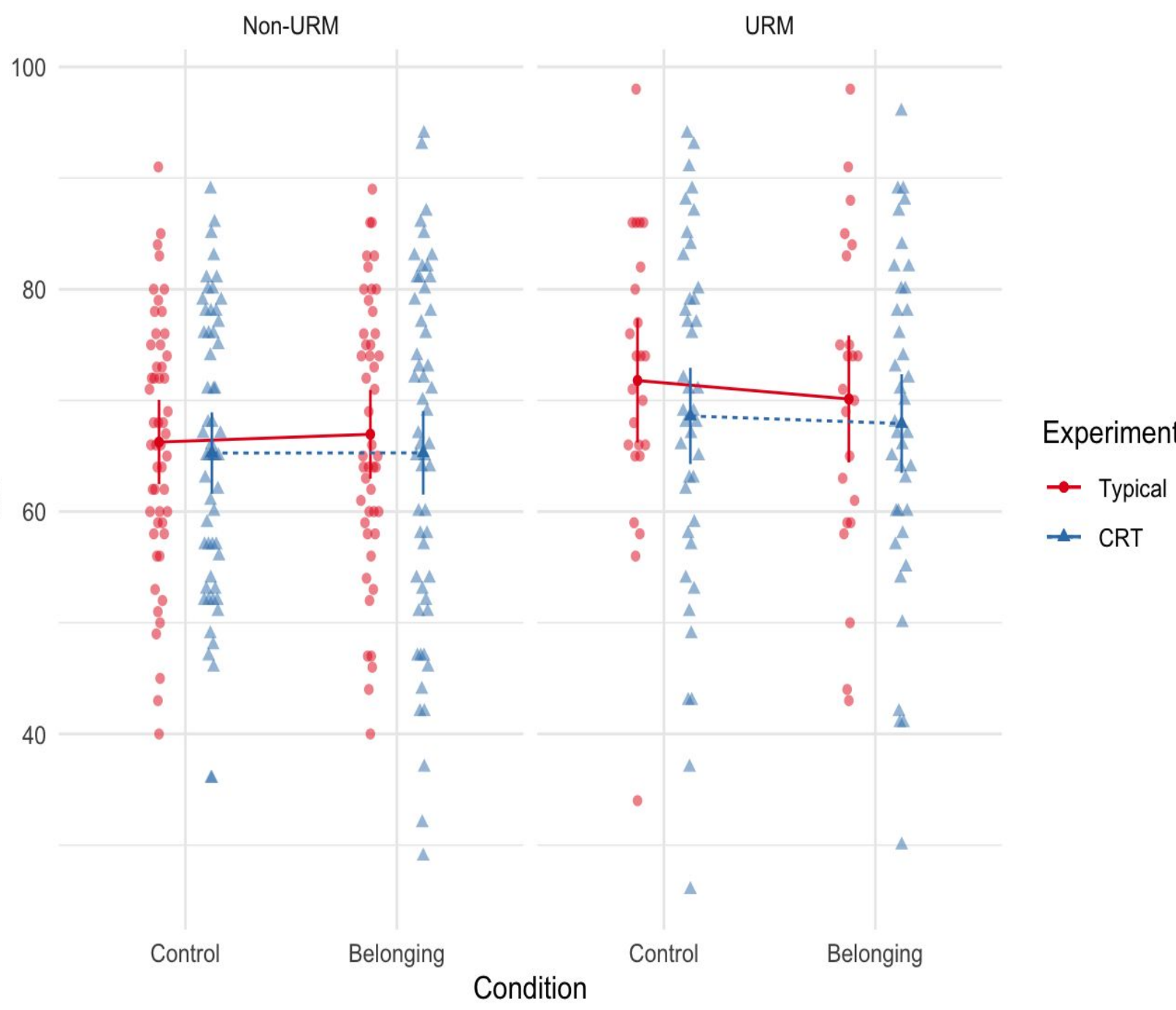


Figure E: Differences in Isolation by Condition, Experiment, and URM Status

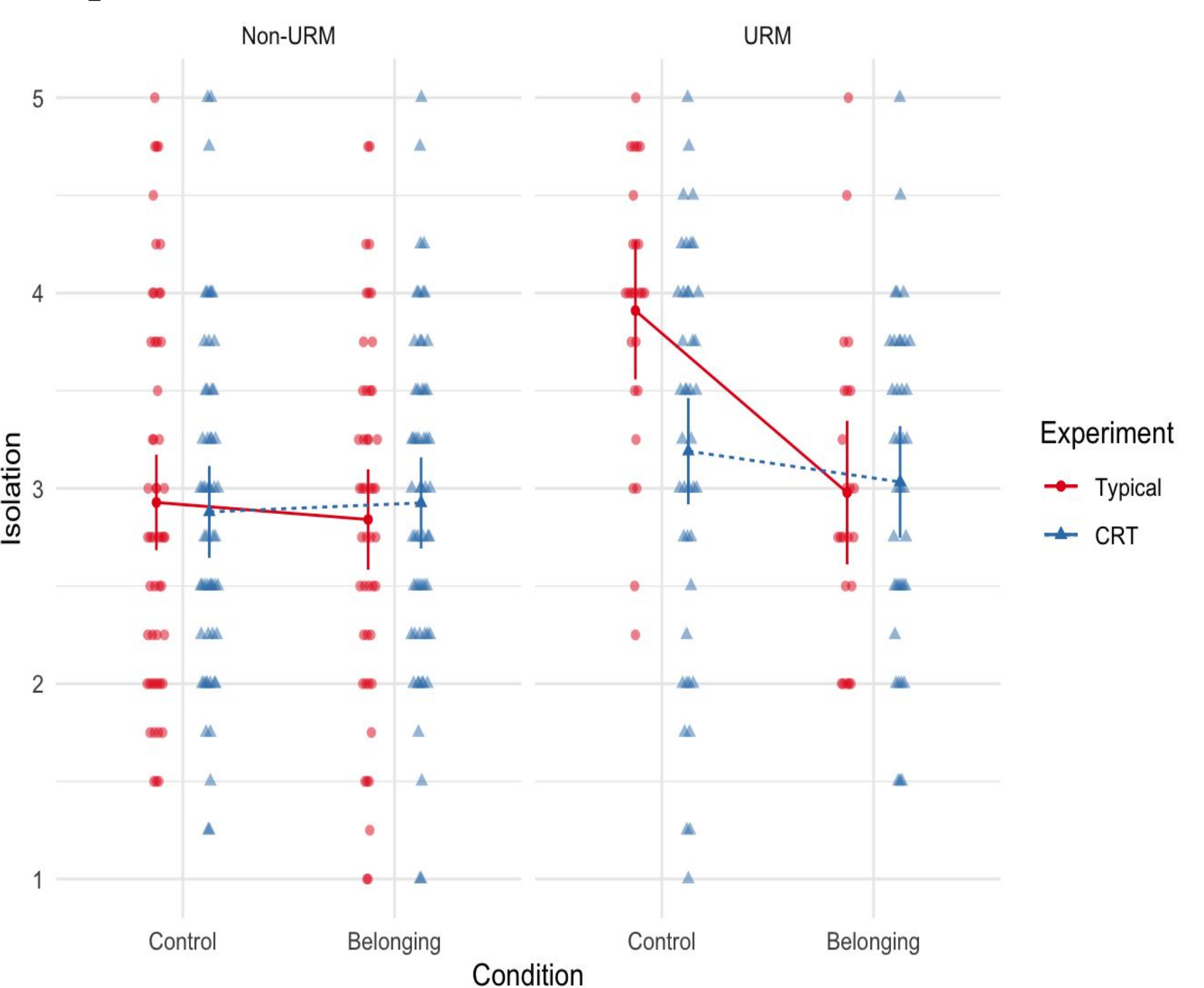
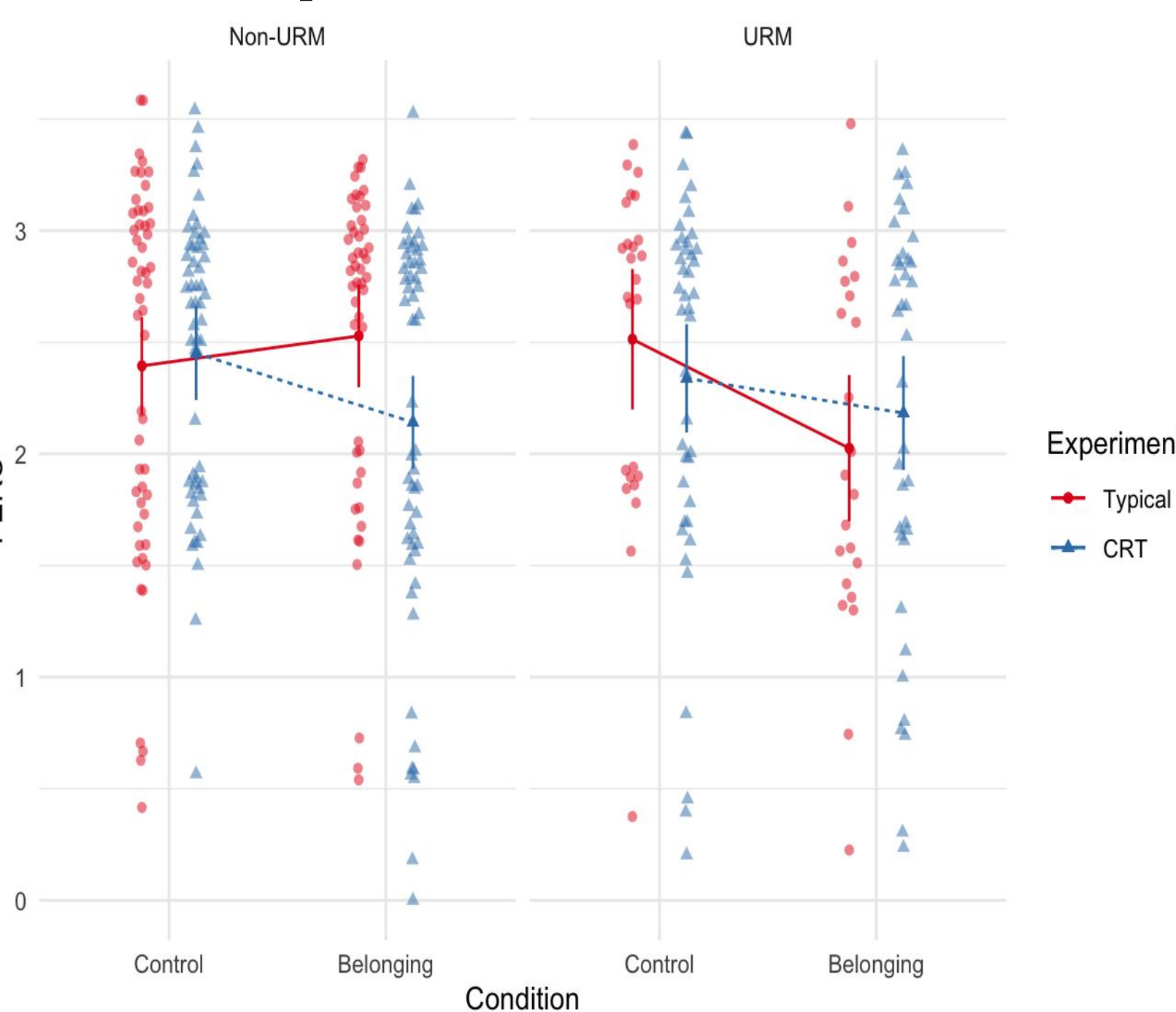


Figure F: Differences in Persistence by Condition, Experiment, and URM Status



Qualitative Analysis

- Students were asked to reflect on their experiences transitioning to college. Their open-ended responses revealed seven recurring themes:
- **Academic Struggles:** difficulty adjusting to the rigor and pace of the university's coursework
 - **Social Integration and Friendships:** forming close relationships and finding community
 - **Independence and Self-Management:** learning to navigate responsibilities without structured support or externally motivating factors
 - **Mental Health and Well-being:** stress, homesickness, and overwhelming emotions
 - **Family and Cultural Adjustments:** Navigating familial expectations and/or culture shock
 - **Resilience and Personal Growth:** students' reflecting on how they adapted, gained clarity, and developed new strengths
 - **Pandemic-Related Challenges:** lingering effects of remote learning and social isolation

While many participants shared hardships, a number of them described how these struggles became catalysts for growth, falling under the theme of Resilience and Personal Growth, which was the most common theme present between the two experiments.

Resilience and Personal Growth
This theme captured how students created meaning from adversity. Some spoke of academic setbacks, social isolation, or self-doubt early in college, but later described how these moments pushed them to adapt, reflect, and ultimately gain confidence and a sense of purpose/direction.

One student shared:
“Last quarter I was ready to quit... now I know that there is a purpose for these challenges, and it will help me mature into adulthood and gain independence”

For many, this growth was not linear but was a process marked by trial and error. Resilience came not just from overcoming obstacles, but from developing a deeper sense of self and purpose in the process.

Discussion

- Main Findings:**
- **Belonging:** The belonging interventions significantly increased feelings of belonging for URM students, but had no significant effect on non-URM students, suggesting the interventions were effective in addressing the needs of marginalized students
 - **Isolation:** URM students experiences a significant reduction in isolation, whereas non-URM students did not, indicating that belonging interventions may be more beneficial for marginalized groups in reducing social isolation
 - **Persistence:** The belonging interventions had a negative effect on persistence, but this effect was conditional. Non-URM students in the CRT-informed intervention and URM students in the typical intervention both had lower scores in persistence. This suggests that different interventions might be more effective for different demographic groups.

- Limitations:**
- Both experiments analyzed were cross-sectional, so long-term effects of the interventions are unclear
 - The sample was limited to a single undergraduate institution, which limits the generalizability across diverse universities and student populations

- Future Directions:**
- Future studies could benefit from exploring additional demographic factors (e.g., socioeconomic status) and assess long-term impacts of the interventions
 - Replicating this study across multiple universities would help confirm if the findings hold true for different student populations
 - A larger sample size would help provide more robust insights

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