Prejudice is rooted in habitual thinking that results in discriminatory practices (Forscher, Mitamura, Dix, Cox, & Devine, 2017). To break prejudicial habitual thinking, one must first be aware of the root bias and have concern about how the bias influences others (Chaney & Sanchez, 2018; Devine, Forscher, Austin, & Cox, 2012). Increasing awareness of bias is perhaps the most difficult step to achieve (Chaney & Sanchez, 2018) because prejudicial bias has shifted significantly from being overt racism to a more covert, modern racism (McConahay & Hough, 1976). The question

Microaggression Detection Measurement Impact on White College Students’ Colorblindness

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ABSTRACT. Racial microaggressions can unduly tax people of color. To combat their impact, people need an increased awareness and ability to detect microaggressions when they occur. The present study examined White individuals’ ability to accurately detect microaggressions across 3 conditions with varied exposure to knowledge about microaggressions (control, low-exposure, high-exposure) at pre- to postintervention. Undergraduate university students (N= 103) were recruited from 2 predominantly White universities. At pre- and postintervention, participants watched a set of video clips, some of which contained racial microaggressions, answered a series of questions regarding the content of the videos, and completed the Colorblind Racial Attitudes Scale (CoBRAS). Participants watched a 1 hr video on racial microaggressions, read an article on microaggressions, or read an article on positive psychology. CoBRAS total score from pre- (M = 62.23, SD = 15.39) to postintervention (M = 61.67, SD = 15.66), t(102) = 3.26, p = .002, d = .32, indicated a significant decrease in overall colorblindness and a significant increase in awareness of racial privilege scores from pre- (M = 26.67, SD = 7.51) to postintervention (M = 25.51, SD = 7.87), t(102) = 3.28, p = .001, d = .32. Awareness of institutional discrimination and blatant racial discrimination did not shift significantly. Results suggest that repeated exposures to videos of microaggressions had a significant effect in increasing awareness of participants’ racial privilege and decreasing colorblind attitudes. This has implications for interventions and future research.

Keywords: microaggressions, prejudice reduction, colorblindness, online intervention, media psychology

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then becomes, how can awareness of bias be increased in order to create the foundation for change in prejudicial attitudes?

**Colorblind Racial Ideology**

After the civil rights movement, it was no longer acceptable to display open prejudice against people of color, and more covert forms of racism (Dovidio, Gaertner, Ufkes, Saguy, & Pearson, 2016), known as *modern racism*, became prevalent (McConahay & Hough, 1976). Modern racism posits that racial beliefs form early in life and are influenced by cognitive and conative components (McConahay & Hough, 1976). Conative components relate to public policy and law, and can shift quickly, such as the signing of a new law. Cognitive components include an individual’s negative thoughts and feelings about a marginalized group. Cognitive components are slower to shift than conative components and can be transmitted to future generations (McConahay & Hough, 1976).

As societal expectations have shifted, negative thoughts and biases about people of color seem to have shifted to the unconscious realm (Gaertner & Dovidio, 2005; Staats, Capatotso, Tenney, & Mamo, 2017). These movements might have been facilitated by the espousing of colorblind racial attitudes. Conative actions (e.g., establishment of affirmative action laws in employment) resulted in new broad social norms (e.g., one shall not express prejudice openly), but these broad social norms did not necessarily shift individuals’ attitudes (e.g., Black people are not as competent in philosophy as Whites). The colorblind narrative (e.g., Black and Whites are all the same! I don’t see color!) simply served to cover negative attitudes from the person espousing that perspective. The end result is a system that appears equitable but is not so.

People holding a colorblind racial ideology claim not to judge others by their perceived race, but rather by the content of their character (Delgado & Stefancic, 2017). Although this is a noble sentiment, true colorblind racial ideology is thought to be unattainable (Neville, Awad, Brooks, Flores, & Bluemel, 2013). Proponents of colorblind racial ideology assert that colorblindness will eradicate racism (Valdes, Culp, & Harris, 2002). However, critics of colorblind racial ideology argue that colorblindness perpetuates racial inequality because it allows racism to go unacknowledged by claiming that race was not a factor in judgement (Delgado & Stefancic, 2017). Colorblind racial ideology has been conceptualized into three distinct domains: *institutional discrimination* (i.e., rejection of the role of racism in social policy), *blatant racism* (i.e., denial of overt racism), and *racial privilege* (i.e., denial of White privilege; Neville, Lilly, Duran, Lee, & Browne, 2000). Blatant racism reflects color evasion or simply put, the minimization of race in society. Institutional discrimination and racial privilege reflect power evasion, or the minimization of racism (Mekawi, Bresin, & Hunter, 2017; Neville et al., 2013). Although these subscales tap different constructs within colorblindness, no known research has examined their differential relationship to different expressions of prejudice.

Across White, Hispanic, and African American groups, most people endorse a colorblind identity (Hartmann, Croll, Larson, Gerteis, & Manning, 2017) indicating that beliefs in a colorblind racial ideology are strong and widespread. However, individuals who endorse a colorblind identity were no more or less likely to support or object to race-based policies (Hartmann et al., 2017) suggesting that egalitarian views do not necessarily translate into less discriminatory behavior or interactions. Further, educators who endorsed stronger colorblind racial ideology were less likely to utilize inclusive teaching practices (Aragón, Dovidio, & Graham, 2017). A colorblind racial ideology maintains the status quo by way of a tenet that people are the same across racial groups (color evasiveness) and have the same opportunities (power evasion) *despite evidence to the contrary* (Neville et al., 2013). Although these findings may be construed as neutral, neutrality is not always a desired outcome. Eli Wiesel (1986) argued that “neutrality helps the oppressor, never the victim” (para. 9).

**Racial and Ethnic Microaggressions**

The term *microaggression* was first described as “subtle, stunning, often automatic and non-verbal exchanges which are ‘put-downs’ of blacks by offenders” (Pierce, Carew, Pierce-Gonzalez, & Wills, 1977, p. 66). Pierce and colleagues coined the term to describe media depictions of Blacks in television. Following the initial definition of microaggressions, little research was conducted on microaggressions (see Pettigrew, 1989; Solorzano, Ceja, & Yosso, 2000). In 2007, Sue and colleagues published a seminal article expanding the definition of microaggressions to “brief and commonplace daily verbal, behavioral, and environmental indignities, whether intentional or unintentional, that communicate hostile, derogatory, or negative racial slights and insults” (p. 273).
Sue et al. (2007) further highlighted specific categories of racial and ethnic microaggressions: microassaults, microinsults, and microinvalidations. Microassaults are explicit, intentional derogations against a person of color and are more reflective of old-fashioned racism (e.g., racial slurs, refusing to serve a person in an establishment). Microinsults are demeaning, insulting communications about or against a person/community of color (e.g., a White woman walking across the street when a Black man walks toward her). Microinvalidations are communications that attempt to nullify or negate a person of color’s experiences with race (Sue et al., 2007). Colorblind racial ideology is a microinvalidation because it seeks to invalidate the reality a person of color experiences by perpetuating the false, racist claim that their experience could not possibly be linked to race and instead must be some other characterological issue. Sue (2010) further argued that adhering to colorblindness denies the role of power and privilege as it pertains to race in our society, which is consistent with the belief that colorblind racial ideology exists to maintain the status quo (Neville et al., 2013).

It is important to note that, in the years following the development of the first taxonomy of racial and ethnic microaggressions, new categories and themes of racial and ethnic microaggressions have been identified (see Johnston & Nadal, 2010; Nadal, Escobar, Prado, David, & Haynes, 2012; Nadal, Wong, Sriken, Griffin, & Fujii-Doi, 2015), and research has expanded to other identities (see Nadal, Whitman, Davis, Erazo, & Davidoff, 2016; Sterzing, Gartner, Woodford, & Fisher, 2017).

Racial and ethnic microaggressions have negative impacts on people of color. Students of color who experience racial and ethnic microaggressions at school report a negative school climate that impacts their educational achievement (Carter Andrews, 2012) and a decrease in their sense of belonging and an increase in emotional distress (Clark, Mercer, Zeigler-Hill, & Dufrene, 2012). Racial microaggressions can also negatively impact mental health. People of color who experience higher rates of racial microaggressions endorsed increased risks for anxiety (Liao, Weng, & West, 2016) and underage binge drinking of alcohol (Blume, Thyken, Lovato, & Denny, 2012), higher rates of somatic symptoms, and negative affect (Ong, Burrow, Fuller-Rowell, Ja, & Sue, 2013). These impacts are problematic by themselves and are also compounded by the fact that persons of color are less likely than White Americans to seek mental health treatment (Buser, 2009).

**Prejudice Reduction Interventions**

The body of literature on prejudice is one of the most prolific in psychology and has informed research on prejudice reduction (Paluck & Green, 2009). Despite the interest in prejudice reduction interventions, there is no consensus on how to best reduce prejudice (Bezrukova, Spell, Perry, & Jehn, 2016; Paluck & Green, 2009).

Research examining the effectiveness of prejudice reduction interventions is sparse, lacking in applicable designs, and does not actually answer whether there are any significant effects in the real world (Paluck & Green, 2009). To explore the vastness of researchers attempting to do just that, numerous meta-analytic studies have been conducted examining the effects of prejudice reduction interventions (see Bezrukova et al., 2016; Kalinoski et al., 2013). In one meta-analysis, Bezrukova and colleagues (2016) reviewed the effectiveness of diversity interventions. Interventions targeting attitudinal/affective outcomes were more likely to lead to decay following the intervention; whereas, interventions targeting cognitive outcomes (i.e., knowledge-based learning) were more stable. Further, integrated (i.e., interventions incorporated throughout a curriculum) were more effective than standalone interventions; there was no difference between training with focused teachings (e.g., teaching about race/ethnicity and then LGBTQ+) compared to generalized issues (e.g., ingroup vs. outgroup), and longer intervention trainings were more effective than brief intervention trainings.

Devine et al. (2012) examined the effectiveness of a habit-breaking intervention that focused on increasing awareness of how bias forms and maintains and then teaching how to replace biased responses with desired, nonbiased behaviors. They found significant reductions in implicit bias during a 12-week longitudinal study. Other research teams have explored how to reduce prejudice in interpersonal contexts. Cooley, Lei, and Ellerkamp (2018) examined whether bringing ownership to implicit biases would reduce prejudice and found mixed outcomes of increasing and decreasing prejudiced behavior depending on internal motivations to decrease prejudice. In an updated and modern exploration of the contact hypothesis, White, Verrelli, Mauder, and Kervinen (2018) examined the role of how e-contact may reduce prejudice against gay and lesbian individuals, and
found that heterosexual men reported decreased prejudice when communicating online with a lesbian woman. Although controversial, interpersonal confrontation, verbal communications addressing the prejudice, can have lasting effects where individuals expressed fewer negative stereotypes about marginalized groups of people (Chaney & Sanchez, 2018). These findings lend to the possibility that interpersonal confrontation may be an effective antiprejudice tool.

Ultimately, there are promising leads for educators and interventionists on how to combat prejudice, especially racism. We aimed to contribute to this important and growing body of literature.

Overview of the Study
This article is a smaller portion of a larger study. To contribute to this expansive body of knowledge, we developed a multimedia intervention designed to increase awareness and detection of racial and ethnic microaggressions in video clips specifically targeting White college students. The original study posited that racial prejudice is difficult to reduce because White people lack basic knowledge about the sociocultural and historical construction of race, the history of racism with particular focus on how modern racism came to be, and the harmful effects of modern racism (see Marley Hypothesis; Bonam, Nair Das, Coleman, & Salter, 2019). Our intervention targeted this gap. We created an intervention within a Critical Race Theory framework (Delgado & Stefancic, 2017) that provided basic information about a topic (e.g., racial and ethnic microaggressions) with clear, accessible examples, and measured whether participants took in the information and were able to demonstrate a measurable difference before and after the intervention (e.g., detection rates). Detection was conceptualized as participants’ ability to watch multimedia clips (e.g., movie or television clips), detect whether a racial or ethnic microaggression occurred during the clip, and describe the encounter observed. We argue that the first step in creating change is to create awareness (Chaney & Sanchez, 2018).

The original study hypothesized that participants’ ability to detect racial and ethnic microaggressions would have different outcomes: the high-exposure condition (i.e., a 1 hr lecture), would have higher detection and accuracy rates compared to the low-exposure (i.e., reading a scholarly article on microaggressions) and control conditions (i.e., reading an article on positive psychology and participants in the low-exposure condition would have higher detection and accuracy rates compared to the control conditions. We further hypothesized that colorblind racial ideology, as measured by the Colorblind Racial Attitudes Scale (CoBRAS; Neville et al., 2000) would moderate the effects of detection rates. Because we did not find significant results regarding detection rates and thus could not explore the moderating effects of colorblind racial ideology, we turned our attention to general shifts in colorblindness. Our decision to explore shifts in colorblindness was guided by previous research where participation in antiprejudice interventions led to changes in reported colorblind racial ideology. We conducted exploratory analysis of the CoBRAS measure and found significant shifts in reported colorblindness, which we believe provide interesting implications for advancing prejudice reduction interventions. We did not complete any other exploratory analyses on any of the other data because we did not want to “cherry pick” our data nor did we want to mislead our community about the magnitude of our findings. The Method section outlines all aspects of the original study to provide transparent methodology, allow for interpretation and critique of our findings, and provide a starting point to outline future directions. The entirety of the original study is available for review (Patterson, 2017).

Method
Participants
A total of 103 (61 women, 40 men, 1 nonbinary, 1 agender; M_age = 23, SD_age = 6.69, range 18–47 years) undergraduate university students were recruited from two predominantly White universities (PWU) in the state of Utah. All participants self-identified as White, Caucasian, or European American. Participants were fairly homogenous across other identities: an absence of disabilities (93.20%), members of The Church of Jesus Christ of Latter-day Saints (LDS; 75.73%), heterosexual sexual orientation (85.44%), and parents with at least some college education (Parent/Caregiver 1, 87.40%; Parent/Caregiver 2, 88.30%). For full demographics, see Table 1.

Procedure
All study procedures were reviewed and approved by the Utah State University Institutional Review Board. Participants were assigned to one of three conditions: control, low-exposure, and high-exposure. Preintervention, participants watched a set of video clips (see Video Clips), answered
<table>
<thead>
<tr>
<th>Variable</th>
<th>Control</th>
<th>Low Exposure</th>
<th>High Exposure</th>
<th>Variable</th>
<th>Control</th>
<th>Low Exposure</th>
<th>High Exposure</th>
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<td>Parent/Caregiver Education Level</td>
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<td>Yes</td>
<td>2 (5.9%)</td>
<td>2 (5.7%)</td>
<td>3 (8.8%)</td>
<td>Less than High School</td>
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<td>1 (2.9%)</td>
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<td>No</td>
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<td>33 (94.3%)</td>
<td>31 (91.2%)</td>
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<td>High School diploma/GED</td>
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<td></td>
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<td>2 (5.7%)</td>
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<td>6 (17.1%)</td>
<td>2 (5.9%)</td>
</tr>
<tr>
<td>Latter Day Saint (LDS)</td>
<td>28 (82.4%)</td>
<td>26 (74.3%)</td>
<td>24 (70.6%)</td>
<td>College degree</td>
<td>20 (58.8%)</td>
<td>17 (48.6%)</td>
<td>13 (38.2%)</td>
</tr>
<tr>
<td>Christian –Not LDS</td>
<td>2 (5.9%)</td>
<td>1 (2.9%)</td>
<td>6 (17.6%)</td>
<td>Graduate Degree</td>
<td>4 (11.8%)</td>
<td>4 (11.4%)</td>
<td>10 (29.4%)</td>
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<td></td>
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<tr>
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<td>3 (8.6%)</td>
<td>3 (8.8%)</td>
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<td>Parent/Caregiver Education Level</td>
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<td>0 (0.0%)</td>
<td>1 (2.9%)</td>
<td>Less than High School</td>
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<td>1 (2.9%)</td>
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<td>Bisexual</td>
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<td>1 (2.9%)</td>
<td>0 (0.0%)</td>
<td>High School diploma/GED</td>
<td>2 (5.9%)</td>
<td>4 (11.4%)</td>
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<td>Demisexual</td>
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<td>1 (2.9%)</td>
<td>0 (0.0%)</td>
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<td>6 (17.1%)</td>
<td>8 (23.5%)</td>
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<td>Straight/ Heterosexual</td>
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<td>29 (82.9%)</td>
<td>27 (79.4%)</td>
<td>College Degree</td>
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<td>14 (40.0%)</td>
<td>14 (41.2%)</td>
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<td>3 (8.6%)</td>
<td>5 (14.7%)</td>
<td>Graduate Degree</td>
<td>14 (41.2%)</td>
<td>10 (28.6%)</td>
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<td>1 (2.9%)</td>
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<td>19 (54.3%)</td>
<td>17 (50.0%)</td>
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<td>1 (2.9%)</td>
</tr>
<tr>
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<tr>
<td>Junior</td>
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<tr>
<td>Senior</td>
<td>3 (8.8%)</td>
<td>5 (14.3%)</td>
<td>7 (20.6%)</td>
<td></td>
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</tr>
</tbody>
</table>
questions regarding the content of the videos, and completed the CoBRAS (Neville et al., 2000). At postintervention, participants watched another set of video clips, answered questions regarding the content of the videos, and completed the CoBRAS. Participants who completed the pre- and postintervention materials received course credit.

Sample Size
We had no literature to inform a priori power analysis calculations. Using G*Power (Faul, Erdfelder, Buchner, & Lang, 2009) we set $\alpha$ = .05, power at .80, and input a moderate effect size (.25) following guidelines for confirmatory research (Jaeger & Halliday, 1998). The program returned a needed sample size of 102 for the total sample that included three between groups (control, low-exposure, high-exposure) and three time points (pre-, post-, follow-up).

Materials
Demographics. The demographics questionnaire obtained self-reported age, gender, race and ethnicity, sexual orientation, religion, program major, state residency status, disability, and parent/guardian education levels.

Video clips. A total of 21 video clips (ranging from 6 s to 2 min) divided into three sets of seven clips were used in this study. Their original purpose was to measure participants’ ability to detect racial/ethnic microaggressions. Clips contained content from web series, Vines, television shows, movies, and stand-up comedy. All final video clips were reviewed by an expert panel: three graduate students (one White genderqueer person, one woman of color, and one man of color), one faculty member (woman of color), and a faculty consultant with an active program of research on racial and ethnic microaggressions (man of color). The expert panel determined whether or not a video clip expressed a racial/ethnic microaggression (yes/no), and if so, they determined the category of each microaggression (i.e., microinvalidation, microinsult, microassault, or not sure) they would place the microaggression under. Finally, we asked them to identify the theme (i.e., ascription of intelligence, second-class citizen, assumption of criminality, pathologizing cultural values, environmental, alien in own land, colorblindness, myth of meritocracy, denial of individual racism, or not sure) for each microaggression. For specific examples tied to specific categories and themes, readers are referred to Sue et al. (2007) and Sue et al. (2019). Respondents could select multiple responses for each item. Responses were coded as correct or incorrect. To provide context regarding the questions asked about the video clips, we have included basic information regarding this measure. However, this article focuses on shifts in colorblindness as a result of participating in an online microaggression training. Thus, further information regarding microaggression detection will not be included. The measure is available in OSF (Patterson & Domenech Rodriguez, 2018). For information regarding data outcome, please review the original study (Patterson, 2017).

Colorblindness. The CoBRAS (Neville et al., 2000) is a 20-item measure that assesses perceptions of racial colorblindness on a 6-point Likert-type scale (1 = strongly disagree to 6 = strongly agree). Items are summed and full-scale scores range from 20–120. The CoBRAS also yields three subscale scores: Racial Privilege (seven items with summed score ranging from 7–42; e.g., “Race is very important in determining who is successful and who is not”), Institutional Discrimination (seven items
with summed score ranging from 7–42; e.g., “Due to racial discrimination, programs such as affirmative action are necessary to help create equality”), and Blatant Racial Issues (six items with summed score ranging from 6–36; e.g., “Racism may have been a problem in the past, it is not an important problem today”). Higher scores on each scale indicate stronger perceptions of colorblindness. For the present sample, Cronbach’s a coefficients for each scale were adequate: full-scale score was .89, Unawareness of Racial Privilege was .87, Institutional Discrimination was .76, and Blatant Racial Issues was .91.

Control intervention. Participants in the control condition read “Positive Psychology: Past, Present, and (Possible) Future” by Linley, Joseph, Harrington, and Wood (2006). This article was chosen to directly mirror the structure of the Sue et al. (2007) article but was completely devoid of any mention of racial/ethnic microaggressions. A six-item questionnaire consisting of true or false and multiple-choice questions followed the article to assess reading comprehension and engagement, with scores ranging from 0 (none correct) to 6 (all correct; M = 4.53, SD = 1.16).

Low-exposure intervention. Participants in the low-exposure condition read the article “Racial Microaggressions in Everyday Life: Implications for Clinical Practice” by Sue et al. (2007). This article was chosen for the low-exposure condition because it allowed participants to develop a base understanding of racial/ethnic microaggressions without any further elaboration. A six-question questionnaire consisting of true or false and multiple-choice questions followed the article to assess reading comprehension and engagement, with scores ranging from 0 (none correct) to 6 (all correct; M = 5.34, SD = 0.80).

High-exposure intervention. Participants in the high-exposure condition viewed one of two microaggression training intervention videos. Visible racial/ethnic minority leaders, one woman of color and one man of color, each led a training intervention video lasting approximately 1 hr. The presentation content was the same. Both videos provided information on the following topics in the following order: objectives and ground rules, brief history of racism with emphasis on the development and occurrence of modern racism, a definition and taxonomy of racial microaggressions (Sue et al., 2007), and physical and mental health impacts of racial microaggressions. The intervention utilized pictures and video clip examples of racial/ethnic microaggressions from television shows, movies, news clips and web-based programming to provide illustrative examples of different kinds of microaggressions. The final videos contained PowerPoint slides spliced throughout the video so that the viewer saw the intervention leader teaching the content and the actual content as it was taught. PowerPoint slides can be found in OSF (Patterson & Domenech Rodríguez, 2018).

Results

The levels of colorblind racial attitudes in our college sample were comparable or slightly lower than Neville’s reported means for White Americans across four samples (Neville et al., 2000; see Table 2). Correlations between the CoBRAS total scale and subscales are found in Table 3 and are similar or stronger than those reported by Neville and colleagues (2000).

We conducted a paired-samples t test to evaluate changes from pre- and postintervention CoBRAS total scores and subscale scores: Racial Privilege, Institutional Discrimination, and Blatant Discrimination. There was a statistically significant decrease in CoBRAS total score from pre- to postintervention across participants for all conditions indicating a decrease in overall colorblindness, t(102) = 3.26, p = .002, d = 32. Similarly, there was a statistically significant decrease in Racial Privilege scores from pre- to postintervention across participants indicating an increased awareness of racial privilege, t(102) = 3.28, p = .001, d = 32. There was no significant difference in Institutional Discrimination scores from pre- to postintervention across participants, t(102) = 1.39, p = .169, or in Blatant Discrimination scores from pre- to postintervention across participants, t(102) = 0.29, p = .774, indicating that there was no change in awareness of Institutional Discrimination or Blatant Discrimination. See Table 2.

To explore the veracity of the effects when the three subscales were examined together, a repeated measures Analysis of Variance (ANOVA) was conducted with the three subscales as the within group variables and group membership (control, low exposure, high exposure) as the between subjects variable. The findings were quite similar. Only awareness of racial privilege decreased over time, F(1, 100) = 10.55, p = .002, η²p = .095. There were no other significant main effects for time nor any significant time by group interactions.

A two-way mixed ANOVA was used to compare mean differences between conditions from pre-
postintervention for total CoBRAS scores. There was no significant interaction between pre- and postintervention CoBRAS scores by condition, $F(2, 100) = 1.31, p = .273$. The main effect of time showed a statistically significant difference in CoBRAS total scores from pre- to postintervention, $F(1,100) = 10.62, p = .002, \eta^2_p = .096$. There was no significant main effect for condition, $F(2,100) = 0.49, p = .612$.

**Discussion**

The purpose of the original study was to examine the impact of an intervention on students’ ability to detect racial and ethnic microaggressions in media video clips. Although we did not find significant changes in detection rates from pre- to postintervention, we did observe a significant decrease in overall colorblindness from pre- to postintervention across all participants, despite assigned condition. Participants in the control condition read an article on positive psychology, those in the low-exposure condition read the seminal Sue et al. (2007) article outlining an initial taxonomy of racial and ethnic microaggressions, and participants in the high-exposure condition viewed a video lecture detailing the history of racism, discussing and observing examples of racial and ethnic microaggressions, and highlighting the impacts of microaggressions on communities of color. Because a significant decrease in overall colorblindness was observed across all participants, we cannot attribute this shift to the interventions. Instead, we argue that exposure to video clips containing racist interactions and subsequent reflection was itself the stimulus that facilitated the change in colorblind attitudes. We suspect that the shifts in colorblindness are linked to repeated exposure to racial and ethnic microaggressions via the video clips. Given the limited findings in prejudice reduction research (Paluck & Green, 2009) and the very few studies on

### TABLE 2

Descriptive Statistics for Pre- and Postintervention CoBRAS Scores

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Pretest</th>
<th>Posttest</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>M</td>
</tr>
<tr>
<td>Total Sample</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoBRAS Total</td>
<td>103</td>
<td>63.23</td>
</tr>
<tr>
<td>Unawareness of Racial Privilege</td>
<td>103</td>
<td>26.67</td>
</tr>
<tr>
<td>Institutional Disc.</td>
<td>103</td>
<td>22.52</td>
</tr>
<tr>
<td>Blatant Racial Disc.</td>
<td>103</td>
<td>14.04</td>
</tr>
<tr>
<td>Control Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoBRAS Total</td>
<td>34</td>
<td>65.35</td>
</tr>
<tr>
<td>Unawareness of Racial Privilege</td>
<td>34</td>
<td>26.50</td>
</tr>
<tr>
<td>Institutional Disc.</td>
<td>34</td>
<td>23.91</td>
</tr>
<tr>
<td>Blatant Racial Disc.</td>
<td>34</td>
<td>14.94</td>
</tr>
<tr>
<td>Low Exposure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoBRAS Total</td>
<td>35</td>
<td>61.80</td>
</tr>
<tr>
<td>Unawareness of Racial Privilege</td>
<td>35</td>
<td>26.20</td>
</tr>
<tr>
<td>Institutional Disc.</td>
<td>35</td>
<td>21.91</td>
</tr>
<tr>
<td>Blatant Racial Disc.</td>
<td>35</td>
<td>13.50</td>
</tr>
<tr>
<td>High Exposure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CoBRAS Total</td>
<td>34</td>
<td>62.59</td>
</tr>
<tr>
<td>Unawareness of Racial Privilege</td>
<td>34</td>
<td>27.32</td>
</tr>
<tr>
<td>Institutional Disc.</td>
<td>34</td>
<td>21.76</td>
</tr>
<tr>
<td>Blatant Racial Disc.</td>
<td>34</td>
<td>13.50</td>
</tr>
</tbody>
</table>

Note. Unawareness of Racial Privilege and Institutional Discrimination scores range from 7–42; Blatant Racial Issues scores range from 6–36. Total scale score ranges from 20–120 with higher total scores indicating stronger perceptions of colorblindness. CoBRAS = Colorblind Racial Attitudes Scale.
microaggressions using an experimental paradigm (Wong, Derthick, David, Saw, & Okazaki, 2014), we thought these data and findings worthy of sharing.

Increasing awareness of bias is a challenge (Chaney & Sanchez, 2018). Consciousness raising is the act of intentionally raising awareness about privilege and oppression (Leonard, 1996) and has been shown as a likely effective intervention in reducing bias and prejudice (Paluck & Green, 2009) and in increasing knowledge of racism in college students (Aldana, Rowley, Checkoway, & Richards-Schuster, 2012). Specifically related to microaggressions, a microintervention of making the invisible visible calls for bringing the microaggression to the foreground of awareness (Sue et al., 2019). Having participants watch repeated videos that depict racial and ethnic microaggressions and asking participants to reflect on the content of the video may act as a powerful stimulus in facilitating change. Whether a person agrees with the conceptualization and veracity of microaggressions or not, if a person is asked to thoroughly examine a race-based interaction and independently concludes that a microaggression has occurred, it becomes much more difficult to deny the racist interactions evident in the video clips. The repeated act of watching video clips with racial and ethnic microaggressions compels the audience to reflect on race, and thus, may be acting as a consciousness raising tool.

When examining the subscales separately, significant movement was observed for the Racial Privilege subscale specifically and not for the other two CoBRAS subscales. These findings may be reflective of characteristics of the sample or confounding variables that were unmeasured. We saw a decrease in racial privilege scores, indicating that participants’ reported increased awareness of racial privilege. Scores on racial privilege have been positively linked with empathic concern and negatively linked to openness to experiences (Mekawi et al., 2017). It is possible that watching videos of racist interactions had an effect on empathic concern for those who were targeted by the microaggressions. It definitely opens the door to an exciting direction to explore. Further, respondents might have been invested in not appearing racist (Sue, 2010) and might have answered items on the CoBRAS in a socially desirable manner (Sears & Henry, 2003). The initial study examined participants’ ability to detect racial and ethnic microaggressions within video clips. We did not assess social desirability because our initial goal was to measure knowledge (i.e., participants’ ability to correctly or incorrectly identify a racist interaction) which should not be impacted by social desirability. However, as participants’ consciousness raised, it is possible that participants became more inclined to report socially desirable findings, especially if they interpreted the researchers on this study as wanting a particular point of view. Thus, it is important that future research examine the role of social desirability.

There were no significant changes in participants’ scores on the Institutional Discrimination and Blatant Racial Discrimination subscales. The content of the video clips was relational in nature. Each clip contained an interaction between characters (e.g., a White character asking “where are you from” to an Asian character) or a reflection of an overall concept (e.g., America being a melting pot). However, none of the clips contained content explicitly regarding institutional discrimination, even if the microaggression demonstrated was reflective of systemic racism (e.g., myth of meritocracy), nor did the intervention materials provide in-depth information regarding systemic racism. Thus, it is unsurprising that no awareness of institutional discrimination occurred. It would be interesting if future intervention materials explicitly linked the relationship of systemic discrimination to the manifestation of racial and ethnic microaggressions. Further, it is not surprising that there was not a significant shift pre- to postintervention on the Blatant Racial Discrimination subscale because preintervention scores were relatively low, indicating a general awareness of blatant racial discrimination prior to participation in the study, leaving little room for shifts to be statistically significant.

**Strengths and Limitations**

Because there has been significant interest in trainings that reduce prejudice, researchers have been seeking the most effective ways to deliver an
intervention. This study incorporated some of the strongest recommendations currently available. We developed an experimental (Paluck & Green, 2009) intervention that integrated knowledge, awareness, and skills (Bezrukova et al., 2016; Garriott, Reiter, & Brownfield, 2016) via media examples (Estrada, Durlak, & Juarez, 2002; Garriott et al., 2016; Soble, Spanierman, & Liao, 2011). We created an experimental design that examined the differences between varying intervention levels (e.g., high-exposure, low-exposure, and control) across three different time points. Further, we utilized authentic media depictions of racial and ethnic microaggressions to highlight the invasiveness of racial and ethnic microaggressions in people’s everyday lives. The original conceptualization of microaggressions examined changing expressions of racism in the media (Pierce et al., 1977). Our study went back to the original abstraction of racial and ethnic microaggressions and also expanded the range of media depictions by utilizing various outlets (e.g., television shows, movies, web series) that people regularly consume.

Although there are significant strengths to this study, there are also some limitations. All of the materials for this intervention were online. Although online interventions increase accessibility and flexibility, there can be complications. For instance, we included manipulation checks to assess engagement (e.g., questionnaire following each article). However, it is impossible to determine actual engagement and interest in the materials. Online materials also present a challenge in that technology can have difficulties (e.g., a video not working) and does not allow for interpersonal engagement at the time of the intervention. If a participant had questions or concerns, there was no person present to respond. This might have led to low engagement or general confusion about the content of the intended interventions.

Although we found significant shifts in overall colorblindness, the effect size was small. There are two possible reasons for this small effect size. First, our intent was not to have the video clips act as the catalyst for change, thus the quantity or quality of the content was not assessed for that purpose. Second, the CoBRAS scores for college students were moderate according to Neville and colleagues (2000). It is possible that a consciousness raising intervention of this nature (i.e., passive watching combined with a brief prompt to consider racism) is more or less effective at different levels of colorblindness.

Future Directions
One could conclude that it is unfortunate that there were no differences across conditions on racial microaggressions detection. However, we believe that nonsignificant findings are valuable to scientific progress, and although we did not report on our null findings in this article, we have offered transparent methodology in the hopes that we can utilize our findings to better construct antiprejudice trainings in the future. Perhaps the interventions were not sufficiently strong enough to lead to changes in knowledge. Nonetheless, we did find significant shifts in overall colorblindness and shifts in awareness of racial privilege. Our effect sizes were small and may be attributed to error. However, we believe that our findings indicate something of value; increased exposure to racial and ethnic microaggressions with intentional reflection may facilitate change and reduce colorblind racial ideology. The implications for this research, we believe, warrant replication to confirm the findings.

Future research may manipulate the quantity and quality of the video clips and examine the relative impact in shifting colorblind attitudes. For example, manipulating exposure to clips that target subtle and blatant discrimination and institutional factors may lead to insights about the differential impact of this observation-plus-reflection method on attitude shifts. At another level, it is much simpler and more cost-effective to direct people, especially college students, to access existing materials that could reduce prejudice than it would be to develop new materials. Understanding how such simple stimuli might exert a meaningful change could be of great interest to educators. Also, we purposefully sought a White population, and our sample was fairly homogenous. It would be important to explore the impact of such a stimulus on a diverse group of individuals or on a group of individuals who have generally higher levels of exposure to diversity (e.g., rural vs. urban university settings). It is an interesting note that the vast majority of our participants identified as members of the Church of Jesus Christ of Latter Day Saints. Exploring the role of religiosity and religious identification on experiences and perceptions of racial and ethnic microaggressions may provide a unique perspective that has not been explored. Because we did not examine these variables and no data exists to support the role of the LDS religious identification on colorblind racial ideology, we cannot assert any connection at this time.

CoBRAS scores for students in our sample
were generally moderate. The careful development of a stand-alone intervention based on this combination of consciousness-raising material from popular media combined with a reflection exercise for people at varied levels of colorblindness could yield important information for educators and interventionists. Attitudes shifts may require different interventions depending on the strength of the belief. For example, research has found that extreme attitudes may be best addressed with an intervention that presents exaggerated agreement, the absurdity of which leads people to shift attitudes (Hameiri, Porat, Bar-Tal, Bieler, & Halperin, 2014).

At this time, the CoBRAS provides total scores and subscale scores that can be used for research purposes. However, there is no known information regarding the clinical utility of these ratings. For example, is there a cutoff at which problematic behaviors are more likely to be observed? Cut-off scores may also provide opportunities to evaluate different types of prejudice reduction interventions for groups with differing starting points. For instance, a group low in blatant discrimination scores, such as our participants, may be most significantly impacted by a consciousness raising intervention to shift scores that were higher on other scales; whereas, a group high in blatant discrimination may better respond to increased exposure with individuals different from themselves (e.g., cooperative learning based on the contact hypothesis; Allport, 1954; Paluck, Green, & Green, 2018; Pettigrew & Tropp, 2006).

Further, we recommend exploring other possible facets that may assist in understanding these findings. Future research should explore the role of social desirability in self-reported colorblindness. Another exciting direction may explore how shifts in empathic concern relate to shifts in colorblindness racial ideology (Mekawi et al., 2017).

Our research utilized cutting edge practices on the forefront of technological innovation in research. Overall, our findings hold promise for low-cost, highly feasible prejudice reduction activities in educational or community contexts.

**References**


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Colorblind Shifts | Patterson and Domenech Rodríguez


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