



Compulsion in White Privilege Training: Effects on Psychological Reactance

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Compulsion in White Privilege Training: Effects on Psychological Reactance

Julianne Smith

A Thesis in the Field of Psychology

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Abstract

Racism is a significant societal problem in the United States, and interventions intended to reduce racial injustice have inconsistent results. One factor that may undermine success or lead to paradoxical outcomes is reactance, a response to a perceived restriction of individual freedom. In this study, conducted via MTurk, White males were randomly assigned to read either a White privilege article or a control condition article (cooking). Participants then completed a brief writing assignment, randomly assigned to a compulsory writing condition, a free expression writing condition, or a control writing condition (cooking). Participants who completed a compulsory writing task were hypothesized to demonstrate more reactance than participants who completed a free expression writing task. Sample did not meet the power required for detecting a statistical effect, but group means were consistent with the hypothesis.

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Chapter I

Introduction

The effects of racism, both past and present, can be seen across multiple domains of society including health (Salles et al., 2021), housing (Hess et al., 2020), education (Quintana & Lana, 2016), employment (Abel & Burger, 2023), and law enforcement (Alpert & Dunham, 1997; Pierson et al., 2020). Diversity programs have been created nationwide to address these systemic issues. These programs require significant resources, including time and money. Empirical data on these programs is lacking. Findings to date have been mixed, with frequent examples of backlash resulting in behaviors and attitudes that are the opposite of those intended (Bezrukova et al., 2016; Dobbin & Kalev, 2016; Kaiser et al., 2013; Plant & Devine, 2001). Psychological reactance (Brehm, 1966) may explain these ironic outcomes. Reactance to White privilege messaging is shown by an increase in hostile racial attitudes and behaviors. Since the goal of these programs is to improve interracial relations, it is important to study this reactance in order to understand how to avoid it.

Psychological Reactance

Jack Brehm (1966) defined psychological reactance as a response to a perceived threat to freedom. This results from psychological and physiological arousal and creates motivation to regain freedom through reactive behavior and attitudes. The amount of reactance depends on the magnitude of the threat and whether the freedom was perceived in the first place. Rather than producing targeted behavior change, the threat to freedom

results in an increase of undesirable attitudes or behavior. This is called reactance or a boomerang effect (Hovland et al., 1953).

Discussing boomerang effects, Ringold (2002) reviewed consumer reactions to interventions such as warning labels and education programs. She found that although some education programs can increase awareness, they generally do not produce the desired behavior change. Further, many interventions produce a boomerang effect such that the undesired behavior increases. Ringold cited multiple examples of public initiatives that had unintended consequences. Warnings against smoking increased the desire to smoke among current smokers. Anti-drug campaigns decreased negative attitudes about drugs. Often, these unintended harmful effects were long lasting.

According to Hovland et al. (1953), boomerang effects are more likely when arguments are weak, presented by a negative source, or nonconformity results in social punishment. This supports the hypothesis that compulsion increases the likelihood of reactivity. Ringold (2002) also noted some personal differences that increase the likelihood of reactance. The first is prior attitudes. The more supportive people are of a behavior, the more likely they are to react negatively to intervention. People who have an internal locus of control are also more likely to display reactance. These people place a high value on individual choice and believe that their personal decisions play a larger role in their outcomes than external circumstances. Thus, it makes sense that a threat to internal control creates a physiological response as people feel suddenly constrained by external forces. The same threat would not have the same impact on a person with an external locus of control, because they already assume that external forces play a large

role in their personal outcomes. This is consistent with Brehm's (1966) assertion that people must perceive that their freedom is being inhibited in order for reactance to occur.

Diversity initiatives appear to be subject to the same problems as other public interventions. Although programs are designed to improve racial relations and reduce systemic racism, there are often unintended consequences that arise. Research on various diversity programs is needed to prevent reactance.

An Empirical Look at Diversity Initiatives

Dobbin and Kalev (2016) detailed their analysis into three decades worth of company data. After reviewing data from over 700 companies, they found that diversity programs can inadvertently increase bias by reducing pressure on companies who feel that they are already taking corrective steps against it. Strategies such as performance ratings for promotions can even reduce diversity in the long run by providing managers with an excuse for their hiring decisions. This is supported by findings that Black workers are rated lower than White counterparts after controlling for worker productivity (Elvira & Town, 2001).

Diversity programs can create a false sense of fairness and be used as a defense against clear claims of discrimination (Kaiser et al., 2013; Kalev et al., 2006). Kaiser and colleagues (2013) had White participants from MTurk read either a standard mission statement or a diversity statement from a fictitious company. After, they saw some data about the company's promotion practices. Half of the participants were given data that showed discrimination and half were shown a fair distribution of promotions. Participants who read the diversity statement rated the company as fairer than participants who read the mission statement, $F(1, 237) = 7.48, p < .01, d = 21$. This remained true regardless of

the company's promotion practices. In a follow-up study, rather than showing the participants promotion data, participants read about a former employee who was suing the company for discrimination. Participants who read the company's diversity statement viewed the discrimination claim as less legitimate, $F(1, 148) = 5.49, p < .05, d = .39$. This shows that diversity programs can have the unintended effect of limiting the perceived need for change.

Despite this potential for increased perceptions of fairness among White people, companies that proclaim pro-diversity values are not rated by minorities as more inclusive, better to work for, or less likely to discriminate (Dover et al., 2016a). Even further, the implementation of these programs can lead to the fear that White people will be treated unfairly. In a hiring simulation with White men, Dover and colleagues (2016b) found that recruitment materials mentioning pro-diversity values led to worse interview performance, increased cardiovascular stress, and increased expectation of discrimination against Whites. This finding was true regardless of political ideology, attitudes towards groups, or beliefs about discrimination.

Dobbin and Kalev (2016) argued that many diversity programs fail to meet their objectives because they focus on the wrong solutions. They found that compulsory training was often met with resistance and could result in backlash or increased bias. Any positive effects were short lasting. They explained this backlash as an attempt to assert autonomy. This is demonstrative of a boomerang effect. They looked at management diversity five years after the initiation of either compulsory or voluntary training. Compulsory training did not make company management any more diverse. Instead, representation decreased among Black women and Asians (4 – 9%) and showed no

improvement for Black men or White women. Voluntary training led to an increase of Black, Hispanic, and Asian men (9 – 13%), with no decrease among Black or White women. The contrast between compulsory and voluntary programs here supports the hypothesis that compulsory programs increase reactivity.

Dobbin and Kalev (2016) suggested that diversity initiatives are most effective when they are voluntary, engage managers in problem solving, increase contact between managers and minorities, and promote social accountability without public criticism. Some promising examples are college recruitment programs, which allow managers to seek out qualified candidates, mentoring programs that increase interracial contact, and diversity task forces or managers that are responsible for monitoring company diversity. These task forces demonstrate to managers that their decisions may be scrutinized, which leads to non-biased decision making in case managers need to justify themselves. This was contrasted with traditional grievance procedures that allow employees to file complaints. Dobbin and Kalev found that among nearly 90,000 complaints, 45% included acts of retaliation. Managers responded to formal reprimands by retaliating against their complainant. This illustrates reactive behavior in response to a perceived constraint on freedom. Diversity task forces seem to avoid this reactivity by maintaining the perception of free choice while promoting accountability. Despite the demonstrated efficacy of these programs, only 15% of the companies studied used college recruitment, 10% used mentoring programs, 20% used task forces, and 10% used diversity managers (Dobbin & Kalev, 2016). Yet, 39% of companies made use of diversity training, which can lead to negative effects (Kalev et al, 2006). The use of real companies in this study shows the

cost of implementing appealing but untested programs to solve complex problems. Of particular interest to the current study is the implementation of White privilege lessons.

White Privilege

White privilege lessons seek to help people understand how privileges shared by White people have shaped how society is formed (McIntosh, 1989). The concept was introduced by Peggy McIntosh (1989), who described an invisible knapsack filled with privileges that make life easier for White people. She gave a list of examples such as being able to shop without being viewed with suspicion, seeing members of your own race represented in popular media, and individuals not being viewed as representatives of their entire race. Other examples of White privilege appear as structural inequalities. Racial disparities appear in health (Salles et al., 2021), housing (Hess et al., 2020), education (Quintana & Lana, 2016), and law enforcement (Alpert & Dunham, 1997; Pierson et al., 2020). These inequalities lead to the perpetuation of systems of poverty (Bloome, 2014), and make it harder for Black people to improve their economic status. Lessons on White privilege are designed to bring greater recognition to these harsh realities, with the goal of reducing stereotypical beliefs that inaccurately blame disparities on personal disposition. They also are meant to call attention to the underlying prejudice and implicit racism that has an effect on perception and behavior without the awareness of the belief-holder (Fazio & Olson, 2003).

Criticisms of White Privilege

One criticism of White privilege messaging is that it increases the salience of race in interpersonal situations. This can make people more likely to view members of one's

own race as a part of an ingroup while perceiving members of different races as part of an outgroup (Frey & Tropp, 2006). Frey and Tropp (2006) recommended reducing the salience of group membership in intergroup situations and increasing intergroup contact to reduce anxiety during interracial interactions. Increasing contact can be a valuable tool in the reduction of racial bias. For example, McGlothlin and Killen (2010) compared White students (ages 7-10) at a homogenous school to White and Black students at a heterogenous school. White students from the homogenous school displayed racial biases when viewing cross-race peer interactions in the Ambiguous Situations Task whereas students in the heterogenous school did not. This was possibly due to the decreased salience of the ingroup/outgroup, since children had grown up together in the same environment. In line with this finding, in their review of diversity initiatives, Dobbin and Kalev (2016) found that increased contact was one of the most effective methods for improving company culture.

In a critique of White privilege training written by a group of educators, researchers, and activists who perform anti-racist work, two narrative accounts highlight problematic trends. First, Lensmire et al. (2013) claimed the ideas inhibit action. After admitting one's privilege, individuals are left without actionable steps to promote change. They cannot simply stop a store owner from viewing them with less suspicion. This would suggest that skill-based programs would be best suited for bringing about change because of the actionable solutions they provide. This is supported by a meta-analysis by Bezrukova et al. (2016) examining 40 years of diversity initiatives. They found that cognitive learning was more stable than behavioral or attitudinal, which decreased over time. This means that although the programs succeeded in creating long term awareness

of racial issues, they failed to create long term attitude or behavior change, which is ultimately the goal of these programs. The most successful programs targeted both awareness and skills, most likely because they provided the participants with tools for behavior change.

Another criticism by Lensmire et al. (2013) was that student resistance to examples of White privilege can be misunderstood by educators. One student was eager to learn about racism and bring about structural change, but he was from a poor rural background and could not relate to the examples of White privilege that were mentioned. His resistance to the messaging was falsely interpreted as racism. Although anecdotal, this example demonstrates that White privilege messaging is not always perceived in the way that it is intended or effective in achieving its purpose.

White Privilege Reactance

Empirical studies of White privilege lessons have mixed results. Some demonstrate backlash in favor of psychological reactance theory (Boatright-Horowitz et al., 2013; Boatright-Horowitz & Seoung, 2009; Branscombe et al., 2007; Egan Brad et al., 2018; Lapierre & Aubrey, 2022; Lensmire et al., 2013; Quarles & Bozarth, 2022). In support of White privilege lessons, Boatright-Horowitz et al. (2013) had White students read and rate their agreement with a list of White privileges. Pre and post intervention evaluation showed an increase in sensitivity to racial issues. Authors interpreted this finding as empirical support of lesson efficacy. However, this is problematic, because the goal is not cognitive awareness; it is behavior and attitude change. Bezrukova et al. (2016) demonstrated in their meta-analysis that cognitive awareness does not ensure behavior and attitude change, so cognitive awareness alone is not a good measure of

lesson efficacy. This gap was demonstrated by Boatright-Horowitz herself when discussing the negative impact that White privilege lessons have had on her student evaluations (Boatright-Horowitz & Seoung, 2009), which likely reflects student reactance.

Boomerang effects of this sort are concerning because of their impact on behavior in addition to attitude. For example, Quarles and Bozarth (2022), simulated an online community using participants recruited from Amazon MTurk. The participants were US residents; 74% were only White and the rest were either a different race or partially a different race. They ran two separate experiments where participants were either exposed to the term “White privilege” or “racial inequality”. The first experiment showed the question: “Should colleges rename buildings that were named after people who actively supported racial inequality/White privilege?” Participants were asked how likely they were to respond to this question in an online community and what they would post if they did respond. The second experiment was the same except participants were given a choice of two questions that they could respond to. This was meant to be a better reflection of social media, where people choose what issues to engage with. Responses were then coded for the participant’s stance on the issue and the frames they used for composing their argument. Low quality responses were defined as those that engaged in personal attacks, challenged the questions itself, contained little content, or were difficult to understand.

When the term “racial inequality” was used, White participants were more likely to support the policy of renaming buildings than oppose it. However, when the term “White privilege” was used, White participants were more likely to oppose the policy

than support it. This indicates that White people are more likely to support progressive policies when non-polarizing language is used. White participants were also significantly less likely to create a post when the term “White privilege” was used. However, this effect was moderated by support for the policy. Whites that supported the policy were less likely to post with the term “White privilege”, while Whites who opposed the policy of renaming were equally likely to respond in both conditions. This may contribute to increased polarity in real communities, if opposing viewpoints are more likely to be represented. Questions using non-polarizing language may be more likely to get a wider range of White viewpoints. Quarles and Bozarth (2022) warned about the impact of language on large scale social dynamics. These effects were not significant among non-White participants, which possibly indicates reduced reactivity to these terms.

However, both White and non-White participants created lower quality and less constructive posts in response to the term White privilege. Quarles and Bozarth (2022) explained the significance of non-White participants here due to the low sample size. However, the low sample size did not lead to significance for either policy support or likelihood of posting. An alternative theory is that the polarizing nature of the term “White privilege” led to more combative response among all participants, including non-White, even if it did not change overall support level among the non-White group.

A major limitation of the study is that the terms “racial inequality” and “White privilege” have different meanings. This may imply different causes for renaming the buildings. However, the study is a good example of how reactance to the term “White privilege” can have a negative impact on interpersonal communication. Other studies of White privilege have looked at factors that possibly contribute to the likelihood of

reactance, such as White identification, affect, internal versus external motivation, political orientation, generation, and perceived threat to freedom.

Investigations Into Contributing Factors

Branscombe and colleagues (2007) asked White undergraduates to think about White privilege or White disadvantage. Subjects in the White privilege group scored higher on the Modern Racism Scale (McConahay, 1986) if they scored high in White identification. Subjects low in White identification scored lower on the Modern Racism Scale. Branscombe and colleagues posited that the threat to White identity increased racism because participants felt the need to justify their group's status by taking on racist beliefs. Therefore, White privilege lessons would be more effective among groups low in White identification. They also suggested that diversity initiatives should seek to enhance a collective identity over racial identity in order to reduce identity threat. They likened this to the message of Martin Luther King Jr., who valued American identity over racial identity. This echoes the call for a reduction in racial salience (Frey & Tropp, 2006).

An interesting finding of Branscombe et al.'s (2007) study is that although political orientation predicted modern racism scores on its own, it did not act as a moderating variable on the effects of the White privilege or disadvantage conditions. This conflicts with more recent findings (Egan Brad et al., 2018; Lapierre & Aubrey, 2022), possibly reflecting a change in political discourse.

In direct contradiction to Branscombe et al. (2007), Lapierre and Aubrey (2022) did not find any significant results for White identification as a moderating variable. Rather, they found that White privilege reactance was moderated by perceived threat to freedom and Fox News viewership. They told White US residents that they would read

an article of national interest or no article. The White privilege article was selected after conducting a stimuli pretest to ensure that it prompted thoughts of White privilege.

Participants completed scales for perceived freedom threat (Dillard & Shen, 2005), White identification (Luhtanen & Crocker, 1992), and racial attitudes (Neville et al., 2000).

They used the Color-blind Racial Attitudes Scale, which is also used in the current study, to measure racial attitudes on three factors: unawareness of racial privilege, unawareness of institutional discrimination, and denial of blatant racism. Researchers controlled for political orientation, age, and education.

Participants in the Lapierre and Aubrey (2022) study reported significantly increased awareness of racial privilege and institutional discrimination after exposure to the White privilege article. However, in line with reactance theory, when people perceived the messages as threats to their freedom, exposure resulted in denial of blatant and institutional racism. This effect was moderated by Fox News viewership, where participants who reported that they were heavy viewers were not affected by the lesson. Researchers had hypothesized that heavy Fox News viewership would increase the likelihood of perceiving a threat to freedom, however, this was not supported. This is likely due to previous exposure to White privilege theory from a conservative bias. This indicates that short term experiment effects are likely to be moderated by previous exposure to White privilege messaging. This study also supports the hypothesis that compulsion increases the likelihood of reactivity, as it increases the threat to freedom.

Egan Brad et al. (2018) found a moderating connection between political orientation, generation (millennial or older), and psychological reactance. US Participants were recruited from MTurk. They were asked for their age, race, and political orientation.

The study only included White participants who placed themselves somewhere on the spectrum of liberal to conservative. Respondents who indicated that they did not know or care about politics were not included. Participants completed an activity designed to increase salience of either White privilege or adult status privilege (such as the right to vote). They were then presented with an Airbnb policy that permitted hosts to decline guests after viewing their names and pictures. This was said to result in discrimination. Participants were asked about their support for the policy.

As might be expected, White privilege salience decreased support for the policy among older moderates and liberals but there was no change for older conservatives. Interestingly though, among millennials, moderates and conservatives increased their support of the policy and liberals showed no change. The inability of White privilege salience to decrease support for the policy among any millennial groups is inconsistent with the hypothesis of Egan Brad et al. (2018). Furthermore, the majority of millennials supported the policy in the racial privilege condition but not the adult status condition. This may demonstrate some reactance among millennials that was not displayed among older participants, perhaps because millennials have grown up around more discussions of White privilege. The generational and political differences here are interesting and should be explored further.

The Airbnb topic chosen by Egan Brad et al. (2018) may not have been suitable for measuring racial attitudes because of its confounding effect on threat to freedom. The Airbnb policy ensured that hosts have the freedom to choose who may or may not stay in their home. Threatening this right likely amplified reactance. The authors clearly did not recognize this issue because results were reported as “racism” that increased or decreased

rather than “support for the policy”. It would have been better to choose an example of a discriminatory policy that did not have so many alternative explanations. For example, the vignette brought up the fact that people could use social media to look people up before accepting their offers. However, doing so could uncover information such as the customer having a criminal history or engaging in drugs or violence. Therefore, support for the policy is not an automatic indication of racism, as was assumed by the authors. It would have been interesting to see how a non-White sample reacted to the same policy.

Plant and Devine (2001) examined affective response and internal versus external motivation to respond without prejudice. For three separate studies, they recruited White students enrolled in introductory psychology courses; the students participated in return for course credit. They selected students based on scores from a mass testing session at the beginning of the semester. They developed a scale to measure both internal (IMS) and external (EMS) motivation to respond without prejudice (Plant & Devine, 1998). Students were eligible for the studies if they scored in the top or bottom 30% of both the IMS and EMS.

In the first study, after assessing baseline anger, Plant and Devine (2001) asked participants how bothered they were by politically correct standards and to what extent they felt the need to comply with them. They then presented them with a scenario where they were told to imagine being asked by a supervisor to hire a Black candidate for diversity reasons. At the same time, this supervisor reminded them that they had a potential raise coming up. Participants reported their general affect following the scenario.

As anticipated, people with a high internal motivation to respond without prejudice were less bothered by politically correct standards than people with a low IMS. Among high IMS, both high and low EMS had similar responses. However, among low IMS individuals, high EMS participants were more bothered than any other group. This was still true after controlling for baseline anger. Although, baseline anger did moderate the effect. Individuals with higher baseline anger responded with more anger to the scenario. The experimenters ran a side study to rule out the possibility that low IMS high EMS individuals were not just generally more reactive, and they did not find that they were.

Plant and Devine (2001) understood that asking about attitudes on political correctness may have interfered with the results, so they performed a second study to rule out that possibility. Participants were presented with the same hiring scenario; except they added a nepotism condition as well. They tested affect, immediate compliance, and compliance after the external pressure was removed (the supervisor moved away). All participants reacted with negative affect to the nepotism candidate. They showed immediate compliance but less compliance after the external pressure was removed. In the Black candidate condition, low IMS high EMS participants demonstrated high immediate compliance but showed the greatest increase in negative affect and the least compliance following the removal of external pressure. Compliance was mediated by negative affect.

In a final study, in order to simulate a situation with real-world consequences, Plant and Devine (2001) told participants that they had to write essays for a university committee that was developing strategies to improve diversity on campus. The policy in

question would increase scholarships for Black students. Participants had their attitudes for the policy assessed at the beginning of the semester during a mass testing session along with their IMS/EMS. Participants were selected because they had a negative view of the policy. When students arrived at the lab, they were informed that the committee already had enough negative essays to review, so they would need to write an essay in support of the policy. After writing the essays, they were asked about their affect and current level of support as well as whether they resented the task. They were then given the opportunity to fill out up to 20 cards for the university with a statement in support of or against the policy. Each card represented one vote. Low IMS high EMS participants showed the greatest decrease in support of the policy, increase in negative affect, and demonstrated the most backlash as indicated by the number of cards they chose to submit.

These studies by Plant and Devine (2001) have all the antecedents of a boomerang effect that were identified earlier. Study effects were moderated by affective response (Plant & Devine, 2001) which is characteristic of the physiological arousal that leads to psychological reactance (Brehm, 1966). Ringold (2002) reported that people with a high internal locus of control are more likely to experience reactance because they are most affected by a sudden external constraint on their freedom of choice. Although Plant and Devine did not measure general locus of control, participants who acted out of mostly external pressure demonstrated the most reactivity and backlash. This would indicate that they felt more constrained by external pressure than other groups. Plant and Devine also used participants in Study 3 who held negative views about Black scholarships. Ringold said that prior attitudes contribute to the experience of reactivity.

The backlash described in this series of experiments provides evidence that compulsion can lead to boomerang effects, especially when participants have little internal motivation to comply.

Investigations into White privilege reactance have thus far focused on the characteristics of the participants rather than the characteristics of the message itself. There is room for further research to study how various types of lessons are perceived. The current study investigates how level of compulsion moderates the reactivity experienced by participants. Modeled after Plant and Devine's (2001) study, the current study used a compulsory writing task and a modified reactive behavior measure. Other studies have used counterattitudinal writing and speaking tasks to promote targeted attitude change via cognitive dissonance (Cohen, 1962b; Janis & King, 1954; Linder et al., 1967; Miller et al., 1996). The possible impact of cognitive dissonance was something that had to be considered when crafting the study.

Cognitive Dissonance

Like psychological reactance, cognitive dissonance results from a state of emotional arousal (Festinger, 1957). Leon Festinger (1957) said that dissonance arises when our behavior and attitudes are inconsistent, and this motivates us to reduce the dissonance. This can be done by a change in behavior or attitude. Behavior change is unlikely when it may be painful, the current behavior is enjoyable, or change is impossible due to other circumstances. Therefore, people often reduce dissonance by bringing their beliefs in line with their behavior or by justifying their behavior through rationalizations and cognitive restructuring. These rationalizations could be viewed as a boomerang effect, as they result in the strengthening of previous beliefs.

Public interventions rely on the assumption that the dissonance created by their messages will create targeted attitude change. In such an experiment, Aronson et al. (1991) told sexually active participants that they were creating an AIDS prevention program. Four conditions were tested. In the hypocrisy condition, participants were asked to discuss any recent unsafe sex they had engaged in. Afterwards, they were asked to write and deliver a speech about safe sex to high school students. The experimenters also set up conditions where subjects reflected on their past without giving a speech (mindful), gave a speech without any personal reflection (preach), or silently composed a speech without delivering it (low mindful/no preach). In a follow-up three months later, participants in the hypocrisy condition reported using condoms more often (64%) than the preach (56%), mindful (26%), or low mindful/no preach (51%) groups. Here, cognitive dissonance was a useful tool in creating targeted attitude change.

Indeed, actively creating and delivering arguments through essays and speeches can be an effective way to change attitudes (Cohen, 1962b; Janis & King, 1954; Linder et al., 1967; Miller et al., 1996). Professors at the University of Nebraska (Miller et al., 1996) found that writing a counterattitudinal essay was more effective at changing beliefs than passive learning such as reading or hearing a lecture. Similar findings have been reported for speeches (Janis & King, 1954). In the current study, participants in the White privilege compulsory condition were asked to write a short potentially counterattitudinal essay about White privilege. The above evidence on counterattitudinal essay writing suggests that people's attitudes should align with their behavior. However, research on White privilege reactivity demonstrates that this does not always occur (Plant and Devine, 2001).

Studies show that as coercive force increases, subsequent targeted attitude change decreases (Brehm, 1962; Cohen, 1962b; Festinger & Carlsmith, 1959, Linder et al., 1967). This induced-compliance paradigm was discovered by Festinger and Carlsmith (1959) after they rewarded students with either \$1 or \$20 for completing a series of tedious tasks. This was equivalent to roughly \$10 or over \$200 today (Federal Reserve Bank of Minneapolis, 2024). Presented as a favor for the experimenter, participants were asked to lie to a fellow student about how enjoyable the tasks were. Before leaving, they gave their actual rating of enjoyment on a scale from -5 to 5. Participants in the control condition ($M = -.45$) and the \$20 condition ($M = -.5$) did not significantly differ, but students in the \$1 condition ($M = +1.35$) rated their participation as significantly more enjoyable. The experimenters explained that the high reward provided a sufficient justification for their lie and thus reduced any dissonance they may have felt.

In a similar experiment, Brehm (1962) had twenty fraternity pledges complete a tedious task for one of the senior brothers. Participants were threatened with either a paddle (low coercion) or a tribunal and potential removal from the fraternity (high coercion). After the task, participants completed a questionnaire about whether fraternity pledges should be used as subjects in the future. The participants in the low coercion condition rated their satisfaction as higher ($M = -.80$) than high coercion participants ($M = -2.59$). Participants had less of a justification for participating, experienced greater dissonance, and reduced it by bringing their attitudes in line with their actions by believing that their participation was not as bad.

Justifications

When Cohen, Brehm, and Fleming (1958) asked participants to write counterattitudinal essays, they were more likely to change their attitudes when they had not been given a list of justifications for their participation. Justifications allow people to excuse their behavior as being the result of some external circumstance. People feel more accountability for their behavior, and thus more dissonance, when they act of their own volition (Cohen, 1962b; Cohen et al., 1958; Cohen & Latane, 1962). Cohen and Latane (1962) demonstrated this by asking students to film a tape in support of a compulsory religion course on campus. Students had been chosen because they expressed negative views about the course during a pre-study questionnaire. In the low choice condition, participants simply were handed the microphone without a chance to decline. In the high choice condition, the experimenter reminded the participant that their participation was completely up to them but subtly persuaded them if they seemed likely to quit. They found that attitude change was less likely when students had less choice. This was explained as having to do with less dissonance and volition for one's words. People did not feel responsible for saying something they were forced to say, so saying it did not prompt self-reflection or attitude change.

Coercion and lack of choice act as justifications for participation in a compulsory program. Since White privilege programs are often designed as compulsory, and refusal often comes with punishment, social or otherwise, participants naturally have a very high justification for their participation. According to the studies presented above (Brehm, 1962; Cohen, 1962b; Cohen et al., 1958; Cohen & Latane, 1962; Festinger & Carlsmith, 1959), this would make targeted attitude change less likely. Encouraging free expression

may increase targeted behavior change by reducing compulsion and the external justification for one's words.

Cognitive dissonance theory predicts that people who experience dissonance will reduce it by a change in behavior or attitude (Festinger, 1957). Given the previously discussed difficulty of changing one's White privilege, individuals are unlikely to seek this method of dissonance reduction. Attitudes are less likely to move in the targeted direction due to the compulsory nature, which increases one's external justification for participation. Festinger (1957) also stated that dissonance can be reduced by the strengthening of one's prior beliefs through rationalizations and cognitive restructuring. This sets the stage for boomerang effects to occur.

While researching boomerang effects, Cohen (1962a) selected participants who were against admitting women to Yale. They were asked to write an essay to persuade someone of the opposing view. After writing their essays, they received feedback indicating how much their partner's views had changed. In the low dissonance condition, the partner appeared to have been somewhat convinced. In the high dissonance condition, the partner ended up becoming stronger in their original views. This was said to produce dissonance because participants believed they had written compelling essays. After seeing the feedback, participants rated their own opinions of the issue again. With low dissonance, 19% of participants experienced a boomerang effect, and 53% moved toward their partner's side. Among the high dissonance participants, 59% boomeranged and only 19% moved toward their partner's side. In an unconscious effort to preserve self-image, and the notion that they had compelling points, participants strengthened their previous views.

White privilege lessons threaten self-image by making White people acknowledge the advantages they have had in life. For a person who values hard work and their personal achievements, this message likely produces a great amount of dissonance. Accepting that message into one's belief system requires them to admit that they have had opportunities that other people did not have, and that it may have been easier for them than for others. Since this would be unpleasant to incorporate into one's belief system, people are less likely to do so (Brehm, 1966). This results in efforts to reduce that dissonance through rationalizations and the strengthening of attitudes that run counter to the program's intent (Branscombe et al., 2007; Lapierre & Aubrey, 2022; Quarles & Bozarth, 2022). When dissonance is reduced, individuals are left with more negative attitudes than before the intervention. Compulsion is hypothesized to amplify this effect by increasing the threat to freedom and reducing the likelihood of dissonance via external justification for participation.

Conclusion

White privilege lessons may not be effective in solving the problems that they are designed to solve. Due to their propensity to trigger psychological reactance, they may have the unintended effect of worsening interpersonal relations. Diversity programs seem to be particularly harmful when they are viewed as compulsory (Dobbin & Kalev, 2016; Plant & Devine, 2001). Dobbin and Kalev (2016) rationalized that increases in racial bias, and backlash to compulsory training, were attempts to assert autonomy. The purpose of the current study was to empirically test the effect of compulsion on White privilege lesson reactivity. Reactive attitudes were measured using the Color-blind Racial Attitudes Scale (Neville et al., 2000) that was used in the Fox News study by Lapierre

and Aubrey (2022). Reactive behavior was assessed using a modified version of Plant and Devine's (2001) study. Participants voted up to twenty times for or against an affirmative action policy. The hypothesis was that compulsory White privilege lessons would produce more psychological reactance among White men than lessons that maintained a sense of freedom. It was predicted that short term lesson effects would be moderated by previous exposure to White privilege messaging.

Chapter II

Method

White males from the United States participated in an online survey via Qualtrics. Four different groups were compared to measure the effect of lesson compulsion on White privilege reactivity: White privilege compulsory, White privilege freedom, White privilege cooking, and a cooking control. The three White privilege groups read a list of White privileges (see Appendix 1) and the cooking control group read a list of cooking myths (see Appendix 2). Following the lessons, the White privilege compulsory group completed a compulsory writing task, the White privilege freedom group completed a free expression writing task, and the White privilege cooking group completed a writing task about cooking. The cooking control group also completed a writing task about cooking. All groups completed a racial attitudes scale (see Appendix 3) and participated in a reactive behavior assessment. Higher scores on the assessments, compared to the control group, indicate reactivity. All White privilege groups were hypothesized to show significant reactance compared to the cooking control, but the White privilege compulsory group was hypothesized to experience the greatest amount of reactance.

Participants

A target of 200 White male participants from the United States were recruited from Amazon Mechanical Turk and compensated \$3 for roughly 35 minutes of their time. In addition, three participants were randomly selected to receive a \$25 bonus.

Listing specific demographic requirements would likely affect responses. Therefore, a screener survey was used to select participants that met the requirements. Men are more likely to display reactance than women (Woller et al., 2007), so women were excluded to examine reactance in the population most likely to exhibit reactance. Furthermore, examining reactance in male participants would increase the likelihood of detecting an effect if it were present. Additionally, only people born and residing in the United States were included to avoid cultural confounds. The screener survey was posted on Mturk with a target of 500 respondents and a guaranteed compensation of \$0.10 for completion. The survey asked basic demographic questions including age, sex, birth country, country of residence, race, employment and education level. It also asked participants to rate their interest in sports, music, science, politics, travel, and TV/movies. White male US respondents were granted survey access approximately one month after screener completion.

Screener Survey

The population of Mturk tends to lean liberal (Chandler et al., 2019), but 51% of the screener respondents were republican. It is unclear why that was. The survey was completed by 697 participants. The average age of responders was 43.03 (SD = 10.54) with a range from 21 to 76 years old.

Of the total screener sample, 487 participants were excluded. Only 300 participants met the inclusion criteria of being White, male, and from the United States. Of those, 80 participants were excluded for failing one of several quality checks. Exclusion criteria included duplicates that were flagged by Qualtrics and removed (37.5%), potential bots and fraudulent responses that were uncovered by Qualtrics or

during review (57.5%), and attention check fails (16.25%). The final 210 qualified participants were given access to the experiment survey.

There were no significant differences between included and excluded participants. The average age of the excluded participants was 37.07 (SD = 10.85) whereas the average age of qualified participants was 37.14 (SD = 10.23), $t[628] = .082, p = .935$, Cohen's $d = .007$. Both groups had an average political lean between moderately republican (2) and independent (3). The average political lean of excluded participants was 2.57 (SD = 1.52) and the average for qualified participants was 2.62 (SD = 1.55), $t[628] = .424, p = .672$., Cohen's $d = .036$.

Experiment Survey

The experiment survey was completed by 143 participants. After reviewing the responses, 97 participants were excluded. As with the screener, duplicates flagged by Qualtrics or uncovered during review were removed (43%). Participants completed three tasks that required writing (lesson comprehension, writing task, behavior measure). Failure to compose relevant and coherent responses to any of these prompts resulted in exclusion without compensation (49%). The individual writing task responses were also examined for inconsistencies (4%). If a participant's stated beliefs did not align with their behavior vote (which asked about the same issue), the response was excluded. Finally, participants who failed at least two of the quality checks outlined below were removed from the sample (3%). In all cases, participants failed to meet the required writing task word count (60) and minimum survey duration (10 minutes).

There were significant differences between the participants who were included and excluded. The final sample was slightly older ($M = 39.52, SD = 12.05$) than the

excluded group ($M = 34.65$, $SD = 8.46$), $t[141] = 2.79$, $p = .006$, Cohen's $d = .500$.

However, it should be noted that both means are within the millennial generation. The final sample was also more independent ($M = 3$, $SD = 1.56$) than the excluded sample which leaned right ($M = 2.06$, $SD = 1.48$), $t[141] = 3.48$, $p = <.001$, Cohen's $d = .623$.

Measures

Participants completed an online survey via Qualtrics one page at a time. The survey was set up so that participants were unable to skip questions or return to one of the pages they had already completed. This was to ensure that they could not change their answers if they suspected the study's purpose. If at any point the participant did not want to continue or did not feel comfortable answering a question, they were instructed to exit the survey.

Materials

Participants in the White privilege compulsory, White privilege freedom, and White privilege cooking groups read a 25-item list of White privilege examples that were included in Peggy McIntosh's (1989) landmark article where she first introduced the concept of White privilege (see Appendix 1). In the cooking control group, participants read a 23-item list of common cooking mistakes (see Appendix 2) from an article on the website Lifehack (Christ, 2013). The two lists were of similar length and took roughly 4-5 minutes to read.

Assessments

All participants took part in the following assessments.

Lesson Comprehension. Following the White privilege or the cooking lesson, participants were instructed to “Write down as many privileges/cooking myths that you remember from the previous page. Only include items that you specifically remember from the list, and not from previous experience with the subject.” This served as both a comprehension and attention check. Failure to list at least one item counted as an attention check failure, and they were eliminated from the sample.

Writing Task. In the White privilege compulsory group, participants were instructed to “Please write a 100-200-word paragraph explaining why corporations *should* use race as a factor when making hiring decisions.” In the White privilege freedom group, participants will be told to “Please write a 100-200-word paragraph explaining why corporations *should* or *should not* use race as a factor when making hiring decisions.” Participants in the White privilege cooking group and the cooking control group were asked “Please write a 100-200-word paragraph explaining your personal experience with cooking.” All tasks took roughly 10 minutes or less. Paragraphs were not scored on their specific content, but they were analyzed to ensure that the participant complied with the appropriate task. Submitting an incoherent or off-topic response resulted in elimination from the sample.

The topic of corporate hiring policy was chosen because it represents a practice that directly relates to the concept of White privilege. The cultural relevance also increased the likelihood of participants being able to quickly state their opinion on the subject. It is an issue that many Americans have knowledge of and pre-formed opinions about. Plant and Devine (2001) produced reactivity using an affirmative action-based policy in their study as well.

Reactive Behavior. The reactive behavior measure was modeled after Plant and Devine's (2001) reactive behavior measure but was adapted for an online setting. In the original measure, participants were asked to fill out up to twenty cards, each representing a vote in favor of or against the policy of increased scholarships for Black students. In the current study, participants were given twenty blank lines on a single survey page. Participants received the following instructions: "Each blank line represents one vote that you may cast in favor of or against the practice of corporations using race as a factor in hiring decisions. You may vote as many or as little times as you would like. If you are in favor of this practice, please write 'I support using race as a factor.' If you are against this practice, please write 'I do not support using race as a factor.'" Note: Anonymized and combined participant responses may be used by companies in establishing or adapting their policies."

Plant and Devine (2001) misled their participants into thinking that their votes would be shared with the university for consideration. The current study similarly suggested that participant votes may be used by real companies. The purpose of the behavior measure is to mimic real-life conditions where reactive behavior may occur. If the experiment did not include deception, it would simply measure the strength of the participant's opinion. The goal was to see how participants might act out against the lesson in real life by casting votes when they believe that there may be real consequences for their votes. This situation could only be created with the use of deception. Participants were informed during the consent process what tasks would be asked of them and that they may be deceived during the study.

This task took roughly two minutes. Each opposing vote was scored as a + 1. Each supporting vote was scored as - 1. A higher mean score among the White privilege groups compared to the control indicate reactive behavior. Minor spelling mistakes were still counted among the vote count. However, participants who failed to complete the task according to the instructions were eliminated from the sample due to inattention.

Racial Attitudes. The Color-blind Racial Attitudes Scale (CoBRAS) created by Neville et al. (2000) assesses racial attitudes on three factors: unawareness of racial privilege, unawareness of institutional discrimination, and denial of blatant racism. The scale has concurrent validity with the Modern Racism Scale ($\alpha = .52$) and the scales for Global Belief in a Just world ($\alpha = .53$) and Multidimensional Belief in a Just World ($\alpha = .61$). The CoBRAS scale has discriminant validity from the Marlowe Crowne Social Desirability Scale ($\alpha = .13$) (Neville et al., 2000), and the confidential nature of the study is intended to provide additional protection from social desirability effects.

The scale takes roughly five minutes to complete and includes 20 items (see Appendix 3). Participants rate their answers on a scale of 1 (Strongly Disagree) – 6 (Strongly Agree). Some items are reverse coded, and total scores range from 20 – 120. In addition to the typical 20 items, one additional item was added to the current experiment as an attention check: “Please mark this item 4.” This item was not used in the determination of CoBRAS score. If a participant marked the answer as something other than 4, then they were brought to a screen thanking them for their time and informing them that they had failed an attention check, and their participation was no longer needed.

Familiarity. Participants were asked about their previous familiarity with the concept of White privilege on a 3-point scale (not at all familiar, somewhat familiar, very familiar).

This was done after the reactive behavior and attitudes measures. Familiarity was controlled for using Analysis of Covariance.

Political Lean. Participants were assigned a political lean score on a scale of 1 – 5 (very conservative, moderately conservative, independent, moderately liberal, very liberal). These self-reported political lean ratings were considered as continuous data and were used to assess mean political leaning of participant groups.

Rotter Locus of Control Scale. Ringold (2002) found that people with an internal locus of control are more likely to display reactance. The Rotter Locus of Control Scale (Rotter, 1966) was added to the current experiment for exploratory purposes. This scale has been shown to have test-retest reliability ($r = .55, p < .001$) and concurrent validity with the MacDonald-Tseng Locus of Control Scale ($r = .42, p < .001$) (Zerega et al., 1976).

Toronto Empathy Questionnaire. The Toronto Empathy Questionnaire (TEQ) (Spreng et al., 2009) has high test-retest reliability ($r = .81, p < .001$) and internal consistency ($\alpha = .87$). There is a positive correlation between the TEQ and self-reported empathy ($r = .80, p < .001$) and a negative correlation with autism ($r = -.33, p < .01$), which demonstrates convergent validity. This questionnaire was added for exploratory purposes.

Quality Check. To assure high quality data, participants who were believed to be rushing through the survey and not responding thoughtfully were eliminated from the sample. There were four components of this quality check that were assessed. Elimination was limited to participants who failed at least two components of the quality check. The first was total time spent on the survey. If participants completed the survey in 10 minutes or less, this counted as one quality check failure. Second, the lesson comprehension responses were assessed for accuracy. If at least 40% of the individual responses were

inaccurate, then the participant failed the quality check. Third, writing task responses were checked for relevance and word count. Responses under 60 words failed the quality check. Fourth, two items on the CoBRAS were checked for consistency. Responses to item 5 (Racism is a major problem in the U.S.) and the reverse-coded item 7 (Racism may have been a problem in the past, it is not an important problem today) should be similar. If there was a score discrepancy greater than 3, then the participant failed this quality check.

In addition to the 4-point quality check, there was one attention check in both the screener and experiment survey that had to be passed. In the demographic screener, participants were asked for the color of the sun. The options were presented as multiple choice. During the experiment survey, one additional item was added to the CoBRAS assessment that stated, “Please mark this item 4.” If they failed either of those checks, they were directed to the end of the survey without compensation.

Procedure

Due to the cultural relevance of the current study, extra precautions had to be put in place to protect both the participants and the integrity of the study. Online studies are always subject to the risk of data breaches. Considering the highly sensitive nature of the topic and potential for controversial answers, participants could suffer reputational damage in the event of their answers being linked to their names. This reputational harm could result in challenges for their home, social, and work lives. Therefore, it was crucial to protect the privacy and confidentiality of the participants at all times.

It was also important to craft the experiment in a way that did not reveal the purpose before the necessary data was obtained. If participants were aware of the purpose

of the study, they would likely be impacted by social desirability effects for both them and the intergroup they feel they represent. Individuals may be personally invested in maintaining a cultural narrative that they adhere to. It would also likely lead to self-selection bias and could create motivation to submit data under multiple accounts in order to influence the results.

Data Collection

The study was conducted entirely online using Qualtrics survey software. Participants were recruited through Amazon Mechanical Turk (MTurk): a service for finding freelance workers to complete small tasks in exchange for an agreed upon rate. MTurk provides quick and affordable access to a large pool of subjects. It is more representative of the United States than typical college samples (Buhrmester et al., 2011), and evidence shows that MTurk samples can demonstrate high test-retest reliability (Holden et al., 2013). However, MTurk's validity has been brought into question in recent years due to problems with bots, inattention, and low-quality responses (Aguinis et al., 2021). To safeguard against these problems, many precautionary measures were put into place. Participation was limited to users with over 1000 successful MTurk submissions and an approval rate of 95%. Bots and duplicates were flagged using the built-in Qualtrics software. The study also included captcha tests and attention/quality checks to ensure that people put time into thoughtful responses. Upon review, participants who failed these checks were eliminated from the sample and did not receive compensation.

One of MTurk's main advantages is that it provides anonymity to its workers, who are only identified by a worker ID. Ensuring data privacy was essential for obtaining

honest responses. Each survey response resulted in the generation of a unique code by Qualtrics. This code was used to match survey responses with worker IDs for compensation and quality control. Data was stored on the researcher's personal laptop with a secure password. After all data was collected and participants were debriefed, all records of worker ID were deleted.

When MTurk workers see a post, they are given a title, brief description, instructions, and the payment amount. Tasks can be set up to remain hidden from workers who do not qualify for them, but the required qualifications are visible to the workers. It is possible to use these qualifications to filter out workers who do not qualify as participants, however, pre-selecting White men from the United States would have likely made a difference in how and which participants responded to the survey due to self-selection bias and social desirability effects. This problem was avoided by using a short demographic screener survey that was limited to workers with 1000 successful submissions and an approval rate of 95%. The screener, described below, was built with extra questions so that workers would be less likely to determine the target demographic. Roughly one month later, in an effort to limit memory of the screener, qualified participants were given access to the experiment survey.

People belonging to different political ideologies were predicted to display different levels of reactance. In order to prevent between-group variability, participants were stratified according to political identification (very liberal, moderately liberal, independent, moderately conservative, very conservative). Within each political group, participants were then divided into the four conditions using the random assignment generator built-into Qualtrics.

Study

Data collection was conducted in two phases: the screener survey and the experiment survey. The latter was conducted roughly one month after the former.

Screener Survey. The screener survey was posted on MTurk for \$0.10 (see Appendix 4). Once participants began the screener survey, they were asked to complete a captcha to detect bots. If they passed, they were brought to the informed consent form. In order to not bias participants' responses, the consent form did not reveal that the study would address White privilege. “We are interested in how various kinds of media content influence how we perceive social issues.” They were also told about the possible use of deception and the risk of a potential data breach. After giving their consent, they were taken to the survey instruction page (see Appendix 5) where they indicated that they would be willing to participate in the full-length study if they qualified.

The demographic questions were split between three survey pages. The first page asked for age, gender, country of birth, country of residence, and race/ethnicity. The second page asked for education level, employment status, the color of the sun (attention check), political affiliation, and local environment (urban, rural, suburban). Participants who failed the attention check were directed to the end of the survey without compensation. The last page asked participants to rate their interest in sports, music, politics, science, travel, tv/movies on a 5-point scale. After they submitted their responses, they were thanked for their time and given a unique code to enter into MTurk to receive compensation.

Experiment Survey. Roughly one month after the screener survey, qualified White males from the United States were given access to the experiment survey through another

MTurk post (see Appendix 6). After completing a captcha, participants were brought to an instruction page (see Appendix 7). Participants moved through the survey pages one at a time using the “next” button. The order and contents of each survey page were as follows:

1. Captcha
2. Instructions
3. Lesson (White privilege/cooking)
4. Lesson comprehension task
5. Writing task (compulsory/free expression/cooking)
6. Reactive behavior measure
7. Racial attitudes and attention check
8. Previous familiarity with White privilege control
9. Rotter Locus of Control Scale
10. Toronto Empathy Questionnaire
11. Thanks and contact request for debriefing
12. Unique code

Individual responses were screened for satisfactory completion. Upon acceptance, participants were compensated \$3 for their time. If a submission required rejection, a brief explanation, such as “Failed to complete task according to instructions”, was provided. Three participants were selected at random to receive a \$25 bonus. After all data had been gathered, participants who indicated a desire to be contacted and fully debriefed were messaged through Mturk. All records of worker ID were then deleted.

Data Cleaning

Data was cleaned according to standard MTurk data cleaning protocol (Chandler et al., 2014). Qualtrics flagged duplicate responses and potential bots. Flagged responses were removed. Also, additional duplicate responses were uncovered during the scoring process. If multiple responses were believed to have come from a single user, under multiple worker IDs, those responses were excluded. This was the case if multiple responses included a similar (but should have been unique) mistake, such as the same spelling error being copied multiple times. This was also the case for identical writing-task submissions.

Inclusion was limited to White participants who were born and live in the United States. Participants were excluded if they did not complete the tasks, or they failed two of the following quality checks. Total time spent on the survey should have been longer than ten minutes. Lesson comprehension was checked for accuracy. Responses were assessed for word count (under 60) and relevancy. Submissions that included off-topic or nonsense answers were removed. Also, to test consistency across answers, two similar items on the CoBRAS assessment were compared. A score difference greater than three counted as a quality check failure. Another sign of inconsistency was if a participant's behavior task vote was the opposite of the opinion they expressed in their writing. If a participant expressed vehement opposition to using race as a factor in their writing yet voted in support of using race as a factor (or vice versa), these responses were excluded. It is possible that this inconsistency was the result of a misunderstanding of one of the prompts, a lack of attention, or truly conflicting thoughts on the matter, but without

information as to why this inconsistency occurred, it was best practice to exclude these responses.

Data Analysis

The hypothesis was that compulsory White privilege lessons would increase the likelihood of reactive attitudes and behaviors. Attitudes were measured using the CoBRAS (see Appendix 3) and behaviors were measured using the reactive behavior measurement. Behavior group means and attitude group means were compared using Analysis of Covariance (ANCOVA) while controlling for the effects of previous White privilege familiarity. Pearson's r was used to test for exploratory correlations.

Chapter III

Results

The final sample consisted of 46 White males who were born and residing in the United States. The survey took an average of 30.66 minutes ($SD = 13.22$). Millennials were the most represented generation (67%), with the average age being 39.52 ($SD = 12.05$). The sample leaned independent ($M = 3$, $SD = 1.56$), with a majority of full-time workers (87%) with 4-year-degrees (74%). The demographic details of the participants are listed in Table 1.

Participants were divided into four conditions. Group averages were compared using ANOVA to look for any significant differences among the groups. No significant differences were found. Table 2 reports the demographic data by group.

Reactive Attitudes

G*Power 3.1 determined that the minimum sample size for this four-group study was 73 participants using a two-tailed between-subjects ANCOVA test with an effect size of 0.5, an alpha of 0.05, a power of 0.95, and one covariate (previous familiarity with White privilege). Due to the high frequency of poor-quality data (68%), the final sample was too small to have enough power to detect the effect if there was one, $F(3, 41) = .723$, $p = .544$. However, means did move in the anticipated direction.

The participants in the compulsory condition had the highest average score on the CoBRAS assessment ($M = 71.42$, $SD = 5.93$), followed by the White privilege cooking

condition ($M = 68$, $SD = 24.42$) and the cooking control ($M = 63.44$, $SD = 16.46$). The group with the lowest average score was the freedom condition ($M = 61.85$, $SD = 15.77$) (see Figure 1). A summary of the statistics are in Table 3.

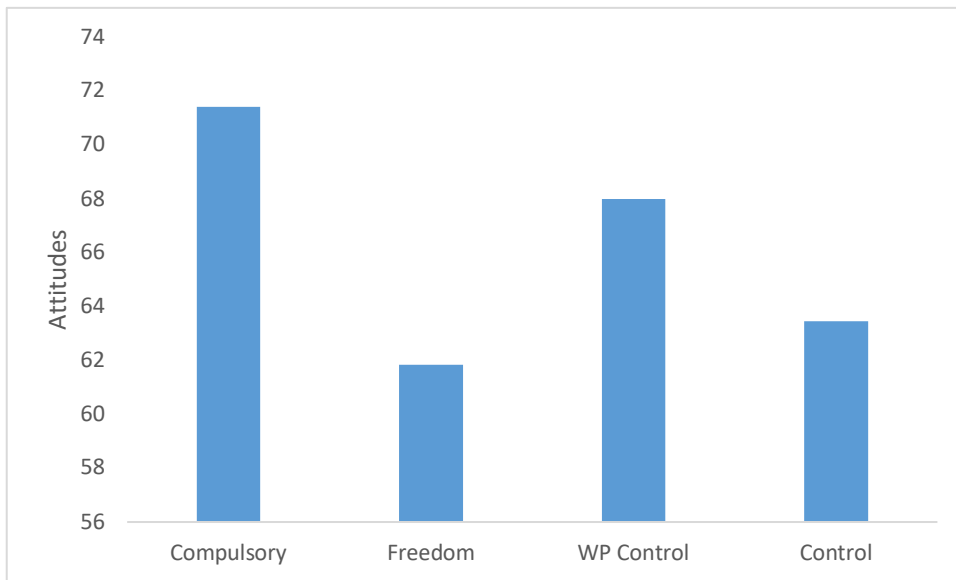


Figure 1. Bar Chart of Attitude Means by Condition

This chart depicts mean scores on the reactive attitude assessment (CoBRAS) grouped by condition.

Table 1. Demographics of Final Sample

Variable	Total	
Sample Size	46	
Age: Mean (SD)	39.52 (12.05)	
Political Lean: Mean (SD)	3 (1.56)	
Political Interest: Mean (SD)	3.89 (1.09)	
Political Affiliation	Very Conservative	13 (28.3%)
	Moderately Conservative	5 (10.9%)
	Independent	8 (17.4%)
	Moderately Liberal	9 (19.6%)
	Very Liberal	11 (23.9%)
Generation	Generation Z	5 (10.8%)
	Millennial	31 (67.4%)
	Generation X	5 (11.0%)
	Boomer	5 (10.9%)
Education	2-Year-Degree	0 (0%)
	4-Year-Degree	34 (73.9%)
	Doctorate	1 (2.2%)
	High School	1 (2.2%)
	Professional	7 (15%)
	Some College	3 (6.5%)
Employment	Full-time	40 (87.0%)
	Part-time	4 (8.7%)
	Retired	1 (2.2%)
	Unemployed	1 (2.2%)
Local Setting	Rural	6 (13.0%)
	Suburban	10 (21.7%)
	Urban	30 (65.2%)

This table presents the demographics of the final sample. All participants were White males from the United States.

Table 2. Demographics By Condition

Variable	Compulsory	Freedom	WP Control	Control	
Sample Size	12	13	12	9	
Age: Mean (SD)	40.5 (14.00)	36.54 (14.00)	36.17 (5.67)	36.17 (12.20)	
Political Lean: Mean (SD)	2.75 (1.60)	2.92 (1.80)	3 (1.60)	3.44 (1.24)	
Political Interest: Mean (SD)	3.5 (1.17)	4.15 (1.21)	3.92 (1.08)	4 (.76)	
Political Affiliation	Very Conservative	4 (33.3%)	5 (38.5%)	3 (25%)	1 (11.1%)
	Moderately Conservative	2 (16.7%)	1 (7.7%)	2 (16.7%)	0 (0%)
	Independent	1 (8.3%)	1 (7.7%)	2 (16.7%)	4 (44.4%)
	Moderately Liberal	3 (25%)	2 (15.4%)	2 (16.7%)	2 (22.2%)
Generation	Very Liberal	2 (16.7%)	4 (30.8%)	3 (25%)	2 (22.2%)
	Generation Z	1 (8.3%)	4 (30.8%)	0 (0%)	0 (0%)
	Millennial	8 (66.7%)	7 (53.9%)	11 (91.7%)	5 (55.6%)
	Generation X	2 (16.7%)	0 (0%)	1 (8.3%)	2 (22.2%)
Education	Boomer	1 (8.3%)	2 (15.4%)	0 (0%)	2 (22.2%)
	4-Year	10 (83.3%)	11 (84.6%)	8 (66.7%)	5 (55.6%)
	Doctorate	0 (0%)	1 (7.7%)	0 (0%)	0 (0%)
	High School	0 (0%)	0 (0%)	0 (0%)	1 (11.1%)
Employed	Professional	2 (16.7%)	0 (0%)	2 (16.7%)	3 (33.3%)
	Some College	0 (0%)	1 (7.7%)	2 (16.7%)	0 (0%)
	Full-time	10 (83.8%)	11 (84.6%)	10 (83.3%)	9 (100%)
	Part-time	1 (8.3%)	1 (7.7%)	2 (16.7%)	0 (0%)
	Retired	0 (0%)	1 (7.7%)	0 (0%)	0 (0%)
Local Setting	Unemployed	1 (8.3%)	0 (0%)	0 (0%)	0 (0%)
	Rural	2 (16.7%)	3 (23.1%)	0 (0%)	1 (11.1%)
	Suburban	2 (16.7%)	2 (15.4%)	4 (33.3%)	2 (22.2%)
	Urban	8 (66.7%)	8 (61.5%)	8 (66.7%)	6 (66.7%)

This table presents the demographics of the final sample organized by condition. No significant differences were detected.

Table 3. Summary of Statistics

Variable	Condition	N	Mean (SD)	Statistical Test	p	Effect size
Reactive Attitudes	Compulsory	12	71.42 (5.93)	$F(3,41) = .723$	.544	.050
	Freedom	13	61.85 (15.77)			
	WP Control	12	68 (24.42)			
	Control	9	63.44 (16.46)			
Reactive Behavior	Compulsory	12	3.42 (11.62)	$F(3, 41) = .699$	.558	.049
	Freedom	13	4.85 (12.27)			
	WP Control	12	-.67 (11.88)			
	Control	9	4.44 (12.71)			
LOC x Attitudes		46		$r(44) = .013$	.931	
LOC x Behavior		46		$r(44) = .124$	.413	
Empathy x Attitudes		46		$r(44) = -.484$	<.001	
Empathy x Behavior		46		$r(44) = -.249$	.095	
Political Lean x Attitudes		46		$r(44) = -.339$	.021	
Political Lean x Behavior		46		$r(44) = -.234$	.117	
Political Lean x Empathy		46		$r(44) = .312$	.035	

This table reports the summary of findings from the current study. ANCOVA analyses controlled for previous White privilege familiarity. Effect size was calculated using Eta-squared for ANCOVA analysis. No significant main effects were detected. Scores on the attitude assessment were inversely correlated with empathy and political lean.

Reactive Behavior

Reactive behavior was also tested with ANCOVA, controlling for previous familiarity with White privilege. Due to the small sample size, there was not enough power to detect a significant result, $F(3, 41) = .699, p = .558$. Means for behavior did not align with the hypothesis or the data from reactive attitudes (see Figure 2). The freedom condition had the highest score ($M = 4.85, SD = 12.27$), closely followed by the cooking control ($M = 4.44, SD = 12.71$). Scores were lower for the compulsion condition ($M = 3.42, SD = 11.62$) and the White privilege cooking condition ($M = -.67, SD = 11.88$).

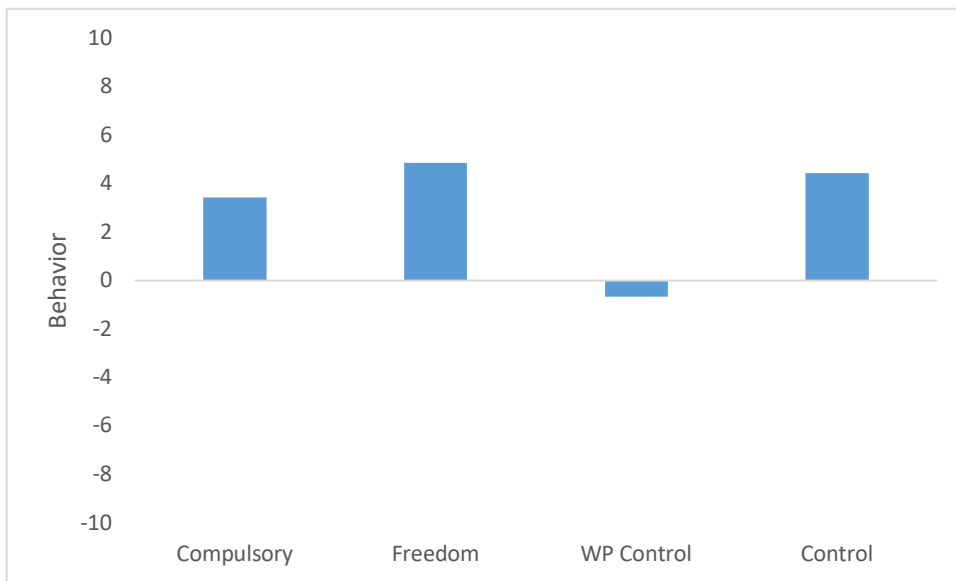


Figure 2. Bar Chart of Mean Behavior by Condition

This chart depicts mean scores on the reactive behavior assessment grouped by condition. Participants received up to 20 votes. Each vote against the affirmative action policy counted as +1. Each vote against the policy counted as -1. Higher scores indicated reactivity.

Exploratory Analyses

There was no relationship between locus of control and attitudes, $r(44) = .01, p = .931$, or behavior, $r(44) = .12, p = .413$. Empathy also did not correlate with behavior, $r(44) = -.25, p = .095$. However, there was a significant inverse correlation between empathy and attitudes, $r(44) = -.48, p < .001$ (see Figure 3). Also, political lean was significantly correlated with attitudes, $r(44) = -.34, p = .021$, and empathy, $r(44) = .31, p = .035$, but not behavior, $r(44) = -.23, p = .117$ (see Figures 4 and 5).

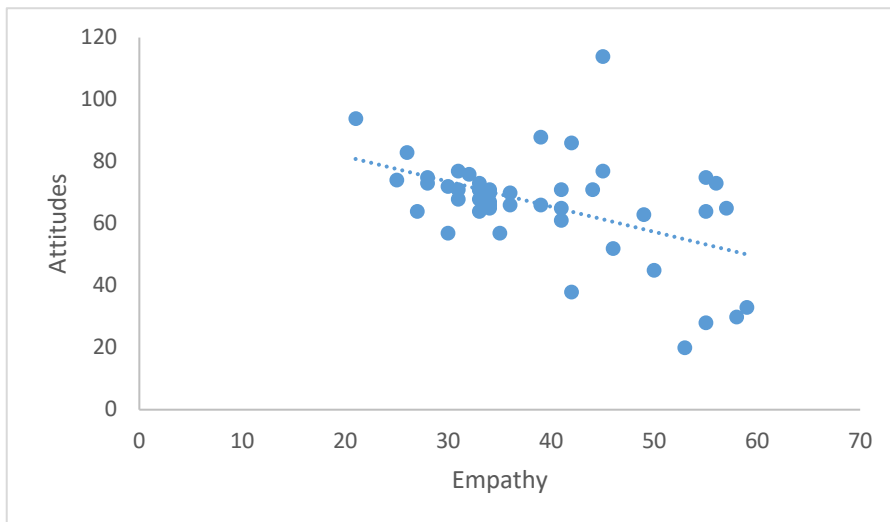


Figure 3. Relationship Between Empathy and Attitudes

This graph depicts the inverse correlation between empathy scores on the Toronto Empathy Questionnaire and attitude scores on the CoBRAS, $r(44) = -.48, p < .001$.

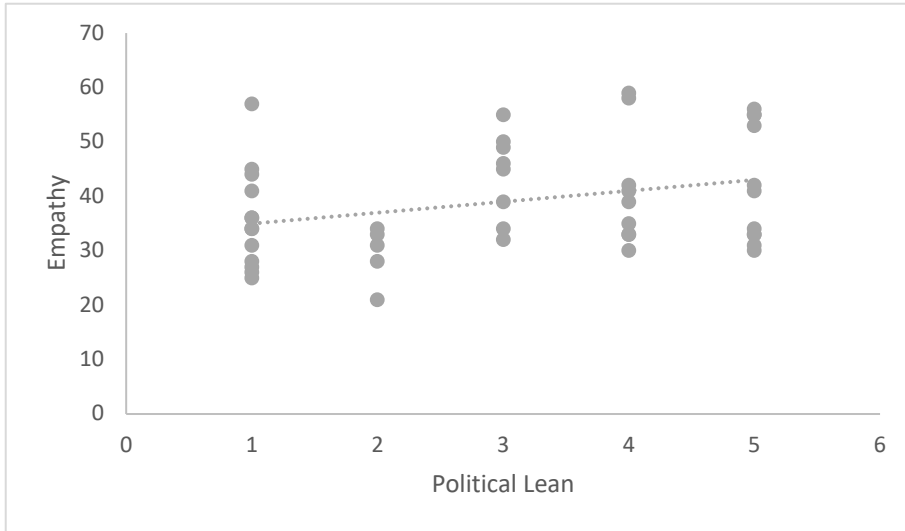


Figure 4. Relationship Between Empathy and Political Lean

This graph depicts the correlation between empathy scores and political lean, $r(44) = .31, p = .035$. Lean score increases as participant becomes more liberal.

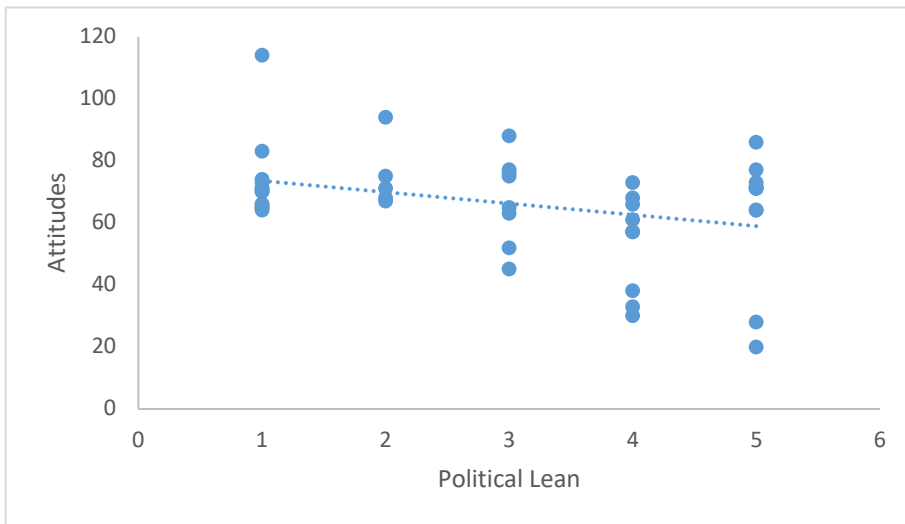


Figure 5. Relationship Between Political Lean and Attitudes

This graph depicts the inverse correlation between CoBRAS scores and political lean, $r(44) = -.34, p = .021$.

Chapter IV

Discussion

Problems with poor data quality reduced the size of the final sample to a problematic degree. Without enough participants, there was not enough power to detect any significant main effects. However, mean scores on the CoBRAS assessment followed the hypothesized pattern. This provides some support of the hypothesis that compulsion to participate in an activity or educational program increases reactivity, as seen in the review article by Dobbin and Kalev (2016). Not only did the compulsion group have the highest attitude score, but the freedom group had the lowest attitude score. This was not predicted by the hypothesis. Free expression not only reduced reactive attitudes compared to the compulsion group, it reduced them compared to the control group as well. Possibly because the lack of external justification for their words increased cognitive dissonance (Brehm & Cohen, 1962). If these results are replicated with a larger sample, it could provide evidence that reducing compulsion reduces reactivity and increasing free expression increases targeted attitude change.

Means for reactive behavior did not follow the same pattern as reactive attitudes. This could be explained by several things. Although Plant and Devine (2001) used a university-based affirmative action question, the current study modified the behavior task to a question about corporate hiring policy. The modification may not have induced the same reaction. It should be noted that Plant and Devine used a sample that was selected

specifically for having views that opposed the affirmative action policy. That was not possible without screening participants for their views in advance.

Writing responses also varied in whether they appeared to be answering the question, “Is it okay to discriminate against members of another race?” or “Is it okay to use race as a factor in order to benefit underprivileged groups?”. Misunderstandings about the meaning of the question likely affected responses and subsequent behavior scores. Therefore, any patterns found within should be interpreted with caution.

It is also possible that the compulsion manipulation was not strong enough. Participants may not feel the same societal pressure to comply with an anonymous online survey that they would feel in an institutional setting where their reputation and future was at stake. Reactance requires a perceived threat to freedom (Brehm, 1966).

Scores on the CoBRAS were significantly correlated with both empathy and political lean. The inverse relationship between empathy and attitude scores is consistent with previous findings (Burkard & Knox, 2004), as is the relationship between empathy and political lean (Morris, 2020). Therefore, the decrease in attitude scores as participants become more liberal is unsurprising. Recent studies using CoBRAS have also reported similar findings for political affiliation (West et al., 2021). However, these results are only exploratory because participants completed different tasks in each condition. The lack of correlation between behavior and empathy or political lean lends support to the notion that the behavior measure was flawed.

General Discussion

Recent research into diversity initiatives shows that many programs fail to produce the desired behavior and attitude change they seek (Legate & Weinstein, 2024).

The current study was an empirical effort to understand these failures. Although the results were not significant, the group means were consistent with the hypothesis that compulsion increases reactive attitudes. This reactivity can worsen interpersonal behavior in interracial settings and hinder attempts at racial progress. It is important to seek empirical solutions so that needless resources are not expended on ineffective programs that harm relations and decrease quality of life (Bezrukova et al., 2016; Dobbin and Kalev, 2016; Dover et al., 2016b; Kaiser et al., 2013). Programs that are shown to increase reactivity should be replaced with more effective methods.

Limitations and Future Directions

There are many challenges associated with conducting studies online. Although collecting data online is democratizing, permitting more people access to participation and shortening the timeline for collecting data, there are significant disadvantages that result in lower quality data than in an in-person laboratory study. It is common for participants to attempt to complete multiple submissions. Robot programs may also be used to try to increase research participation earnings. Sometimes these can be detected, but it is increasingly difficult to discern human from non-human participants. People may lie on their screeners to try to increase their likelihood of being chosen to complete surveys. They may also rush through the measures without thinking deeply about each question, in a way they might be reluctant to do were there a human research assistant supervising their participation. Although attention checks aim to mitigate this problem, it is difficult to determine if all the results are reliable.

Participants who believed they figured out the study's purpose could have changed how they responded to subsequent questions. This is especially true if people

became concerned about their anonymity, since data harvesting and data breaches are specific problems associated with online studies.

The use of a between-subjects designs makes it impossible to determine how specific individuals were impacted by the various conditions. However, using a repeated measures design runs the risk of having the pre-test influence how the White privilege lesson will be perceived. Therefore, it was determined that a between-subjects design was more appropriate for this study.

The current relevance of this issue likely caused problems. People may be so polarized and set in their opinions that the intervention did not have a significant effect. It also likely led to self-selection bias. Many of the studies previously described were conducted several years ago, so it is possible that the concept of White privilege was less familiar to participants back then. To add to the relevance, Harvard's affirmative action Supreme Court case took place as the study was in development. It likely decreased any dissonance felt by people who felt emboldened by the Supreme Court's decision against affirmative action. It was also impossible to remove Harvard from the Qualtrics URL, so participants knew which university was sponsoring this research. A couple participants even wrote about Harvard in their response. This also likely added to the misunderstandings about the behavioral task question.

Small sample size made it impossible to investigate some of the questions of interest. Originally, the study was designed to stratify by both political affiliation and gender, but this was unable to happen due to the low amount of generation Z and boomer participants. It would have been nice to explore the varying generational patterns found by Egan Brad and colleagues (2018).

Psychological reactance is typically induced by a perceived threat to freedom (Brehm, 1966). It is hard to limit individual freedom with a low-stakes online survey that people can discontinue any time they wish. This is different from school or work diversity programs, where there is significant social pressure to conform. Without posing a sufficient threat to freedom, the chance of producing a significant amount of reactivity is unlikely.

Although the results of this study are consistent with the hypothesis that compulsion increases psychological reactivity in White males, the effects did not rise to the level of significance. This study can be considered a pilot study for future investigation. Future studies can measure differences in male and female responses as well as long-term effects. Also, recruiting a large, generationally diverse sample would permit investigation of generational cohort differences in reactance.

Appendix 1

White Privileges

Directions. Below is a list of common White privileges. Please read all of the following items carefully.

1. I can, if I wish, arrange to be in the company of people of my race most of the time.
2. If I should need to move, I can be pretty sure of renting or purchasing housing in an area which I can afford and in which I want to live.
3. I can be pretty sure that my neighbors in such a location will be neutral or pleasant to me.
4. I can go shopping alone most of the time, pretty well assured that I will not be followed or harassed.
5. I can turn on the television or open to the front page of the paper and see people of my race widely represented.
6. When I am told about our national heritage or about “civilization,” I am shown that people of my color made it what it is.
7. I can be sure that my children will be given curricular materials that testify to the existence of their race.
8. I can go into a music shop and count on finding the music of my race represented, into a supermarket and find the staple foods which fit with my cultural traditions, into a hairdresser’s shop and find someone who can cut my hair.

9. Whether I use checks, credit cards, or cash, I can count on my skin color not to work against the appearance of financial reliability.
10. I can arrange to protect my children most of the time from people who might not like them.
11. I can swear, dress in secondhand clothes, or not answer letters, without having people attribute these choices to the bad morals, the poverty, or the illiteracy of my race.
12. I can speak in public to a powerful male group without putting my race on trial.
13. I can do well in a challenging situation without being called a credit to my race.
14. I am never asked to speak for all the people of my racial group.
15. I can remain oblivious of the language and customs of persons of color who constitute the world's majority without feeling in my culture any penalty for such oblivion.
16. I can criticize our government and talk about how much I fear its policies and behavior without being seen as a cultural outsider.
17. I can be pretty sure that if I ask to talk to "the person in charge," I will be facing a person of my race.
18. If a traffic cop pulls me over or if the IRS audits my tax return, I can be sure I haven't been singled out because of my race.
19. I can easily buy posters, postcards, picture books, greeting cards, dolls, toys, and children's magazines featuring people of my race.

20. I can go home from most meetings of organizations I belong to feeling somewhat tied in, rather than isolated, out-of-place, outnumbered, unheard, held at a distance, or feared.
21. I can take a job with an affirmative action employer without having coworkers on the job suspect that I got it because of race.
22. I can choose public accommodation without fearing that people of my race cannot get in or will be mistreated in the places I have chosen.
23. I can be sure that if I need legal or medical help, my race will not work against me.
24. If my day, week, or year is going badly, I need not ask of each negative episode or situation whether it has racial overtones.
25. I can choose blemish cover or bandages in “flesh” color and have them more or less match my skin.

Appendix 2

Cooking Myths

Directions. Below is a list of common cooking mistakes. Please read all of the following items carefully.

1. You don't let meat sit after cooking. Whatever you do, fight the urge to cut into that beautifully marbled piece of meat after you take it off the grill. Wait 5 minutes for the juices to distribute.
2. You don't taste the food as you're cooking. While it's good to have confidence in your cooking, not tasting your food is a big no-no. Even if you're following a recipe, taste early and often.
3. You put too much food in the pan. Overcrowding your pans means more uneven heat distribution. Instead of stuffing the pan with food, make two batches.
4. You flip the meat on the grill constantly. You know how many times you need to flip a good piece of meat? Once. That's all it takes to get a nice, beautiful sear.
5. You cook beef, chicken, or fish directly after you remove it from the fridge. Let meat sit in the sink for about 30 minutes before you cook it, so it reaches room temperature. This allows for even cooking, so you don't get a medium-well steak when you want a medium-rare one.
6. You take the lazy way out. It's easy to choose the "ready-made," highly processed junk. But nothing makes up for the real thing. Buy all natural, real ingredients.

7. You over season. It's easy to get aggressive with the salt and other seasonings.
When this happens, use water or an acid like lemon juice or vinegar to dilute it.
8. You under-season. The only thing worse than over-seasoning is under-seasoning.
That's why you should always taste your dishes before you serve them.
9. You overcook the meat. There's a simple solution for this one: use a meat thermometer.
10. Your food sticks to the pan or grill. Buy a plastic bottle and fill it with olive oil.
This will help grease the grates on the grill or pan so food doesn't stick.
11. Your breading doesn't stick to the food. Try this no-fail process for getting your breading just right: first dredge in flour, then dip in liquid (like beaten eggs or buttermilk), then coat with breadcrumbs.
12. You don't know your kitchen appliances' cooking times. Hey, we've all been there. Sometimes it takes some getting used to your appliances, especially if they're new.
13. You added too much heat. Spicy foods are great but it's easy to overdo it with the spice. If possible, add a little water, lemon juice, or salt to neutralize the heat.
14. Your egg whites won't whip. There's an easy fix for this one: let the eggs sit in the bowl on your counter for at least 15 minutes. Eggs whip easier at room temperature.
15. Your salads are soggy. To decrease the odds of a soggy salad, rinse your greens under cold water then dry them in a salad spinner.
16. You forgot to thaw the meat in the refrigerator. Here's a quick fix to thaw frozen food: put in a plastic bag and let it sit in a bowl of cold water for an hour.

17. You're using the wrong cooking oil. Certain cooking oils have lower smoke points, which means it helps to know which oils to use at various temperatures.
18. You don't heat up the pan properly. Your cooking surface needs to be hot before you place anything on it. Give your pan or grill at least 5 minutes to heat up.
19. You overcook your veggies and they taste mushy. "Shock" those veggies when they're done cooking, which means tossing them into very cold water after the allotted cooking time is up.
20. You burn the bacon. Cooking bacon in a pan can be a greasy debacle in your kitchen. Bake your bacon instead at 400 degrees for 20 minutes.
21. Your guacamole turns brown. Guacamole has a tendency to oxidize, which turns it an unappetizing brown color. If you're serving guac, just squirt a little lime juice or lemon juice on the top periodically to prevent browning.
22. Your eggs are tough and dry. If you struggle with eggs, lower the cooking temperatures. Lower the heat and cook at low to medium heat until the eggs are still moist. Remove them from the heat source immediately and serve.
23. You remove the crock pot lid. Taking the lid off every half hour means heat escapes, which can affect the cooking time and ultimately the taste of your food. Check on your crockpot creation a maximum of once every 2-3 hours.

Appendix 3

CoBRAS

Directions. Below is a set of questions that deal with social issues in the United States. Using the 6-point scale, please give your honest rating about the degree to which you personally agree or disagree with each statement. Please be as open and honest as you can; there are no right or wrong answers.

1. Everyone who works hard, no matter what race they are, has an equal chance to become rich.
2. *Race plays a major role in the type of social services (such as type of health care or day care) that people receive in the U.S.*
3. It is important that people begin to think of themselves as American and not African American, Mexican American or Italian American.
4. *Due to racial discrimination, programs such as affirmative action are necessary to help create equality.*
5. *Racism is a major problem in the U.S.*
6. *Race is very important in determining who is successful and who is not.*
7. Racism may have been a problem in the past, it is not an important problem today.
8. *Racial and ethnic minorities do not have the same opportunities as white people in the U.S.*

9. White people in the U.S. are discriminated against because of the color of their skin.

10. Please mark this item 4.

11. Talking about racial issues causes unnecessary tension.

12. It is important for political leaders to talk about racism to help work through or solve society's problems.

13. White people in the U.S. have certain advantages because of the color of their skin.

14. Immigrants should try to fit into the culture and values of the U.S.

15. English should be the only official language in the U.S.

16. White people are more to blame for racial discrimination than racial and ethnic minorities.

17. Social policies, such as affirmative action, discriminate unfairly against white people.

18. It is important for public schools to teach about the history and contributions of racial and ethnic minorities.

19. Racial and ethnic minorities in the U.S. have certain advantages because of the color of their skin.

20. Racial problems in the U.S. are rare, isolated situations.

21. Race plays an important role in who gets sent to prison.

** Items in italics are reverse coded*

*** Item in bold served as attention check**

Appendix 4

Screener Post

Title: Screener Survey – Academic Study – Compensation up to \$28

Reward: \$0.10

Description: Demographic screener survey for confidential Qualtrics survey. Please read all instructions before continuing.

Instructions: Short multiple-choice demographic screener survey. Proficiency in English required. If you meet the study qualifications, you will be sent a 35-minute academic survey roughly one month after completion. The survey will involve a short reading and writing task along with some survey questions. Only complete this screener if you are willing to participate in the full academic study. Academic study participants will receive \$3 for approved submissions. In addition, three random participants will receive a \$25 bonus. Submission approval is contingent on attention to all instructions.

Appendix 5

Screener Instructions

The following are basic demographic questions that will be used to determine whether you qualify for a confidential academic study. These questions should take no more than 3 minutes to answer and you will be compensated \$.10 for your time. If you meet the qualifications for the study, you will be granted access to a 35-minute survey that involves a short reading and writing task along with some survey questions.

Responses for both surveys will remain confidential. At the end of the study, you will receive a unique Qualatrics code that will be used to match your answers to your worker id. Your worker Id is necessary to award payment and ensure data quality. After all data has been gathered, all records of your worker Id will be deleted. Your participation in this survey is entirely voluntary. If you do not feel comfortable answering any questions, please exit the survey.

_____ I have read and understood the survey instructions. I am aware that my participation is voluntary, and I may exit the survey at any point.

_____ I am willing to participate in the full-length study should I qualify.

_____ I am not willing to participate in the full-length study should I qualify.

Appendix 6

Experiment Post

Title: Academic Study – Compensation up to \$28

Reward: \$3.00

Description: Confidential Qualtrics survey. English proficiency required.

Instructions: The study involves a short reading and writing task along with some survey questions. The total task will take about 35 minutes, with a maximum of 90 minutes allowed. You are required to complete the task in one sitting. Do not open the survey until you have enough time to complete it. Failure to demonstrate basic English reading comprehension, writing ability, or attention to task will result in rejection without compensation. All questions and tasks must be completed carefully and honestly. Responses will remain confidential. A unique code will be given to you at the completion of the study which will link your answers to your worker Id in order to assist with approval and quality control. After all data has been gathered, all records of your worker Id will be deleted. If at any time, you do not wish to answer a question or continue with the study, please close the survey. Approved submissions will be compensated \$3. In addition, 3 participants will be randomly selected to receive a \$25 bonus after all submissions have been received.

Appendix 7

Experiment Instructions

Please read the following directions carefully. This study involves a short reading and writing task as well as some brief survey questions. It is important for all questions to be answered completely and honestly. Your participation in this study is completely voluntary. If at any point, you do not wish to answer a question or continue with the study, you may end your participation by closing the survey. This survey is meant to be completed in one sitting. It will take approximately 35 minutes, but you will be given 90 minutes to submit your answers.

All answers will remain confidential. However, complete anonymity cannot be guaranteed in an online study due to the risk of a data breach. At the end of the survey, you will receive a unique identification code that will be used to match your answers with your worker Id. Your worker Id is necessary to award payment and ensure data quality. After all data has been gathered, all records of worker Id will be deleted. Data will be stored on the researcher's personal password protected computer until the study is complete.

Please answer honestly, as there are no right or wrong answers. You will not be scored on the content of your responses, but you will be assessed on your ability to follow all instructions. Failure to follow instructions or pass quality checks will result in rejection without compensation. By checking the box below, you consent to these conditions and agree to participate in the following study.

References

- Abel, M., & Burger, R. (2023). Unpacking name-based race discrimination. *IZA Discussion Paper No. 16254*. <https://doi.org/10.2139/ssrn.4490163>
- Aguinis, H., Villamor, I., & Ramani, R. S. (2021). MTurk research: Review and recommendations. *Journal of Management*, *47*(4), 823–837. <https://doi.org/10.1177/0149206320969787>
- Alpert, G. P., & Dunham, R. G. (1997, October). *The force factor: Measuring police use of force relative to suspect resistance*. Washington, DC: Police Executive Research Forum.
- Aronson, E., Fried, C., & Stone, J. (1991). Overcoming denial and increasing the intention to use condoms through the induction of hypocrisy. *American Journal of Public Health (1971)*, *81*(12), 1636–1638. <https://doi.org/10.2105/AJPH.81.12.1636>
- Bezrukova, K., Spell, C. S., Perry, J. L., & Jehn, K. A. (2016). A meta-analytical integration of over 40 years of research on diversity training evaluation. *Psychological Bulletin*, *142*(11), 1227–1274. <https://doi.org/10.1037/bul0000067>
- Bloome, D. (2014). Racial inequality trends and the intergenerational persistence of income and family structure. *American Sociological Review*, *79*(6), 1196–1225. <https://doi.org/10.1177/0003122414554947>
- Boatright-Horowitz, S. L., Frazier, S., Harps-Logan, Y., & Crockett, N. (2013). Difficult times for college students of color: teaching White students about White Privilege provides hope for change. *Teaching in Higher Education*, *18*(7), 698–708. <https://doi.org/10.1080/13562517.2013.836092>
- Boatright-Horowitz, S. L., & Seoung, S. (2009). Teaching White privilege to White students can mean saying good-bye to positive student evaluations. *American Psychologist*, *64*(6), 574-575. DOI: 10.1037/a0016593
- Branscombe, N. R., Schmitt, M. T., & Schiffhauer, K. (2007). Racial attitudes in response to thoughts of White privilege. *European Journal of Social Psychology*, *37*(2), 203–215. <https://doi.org/10.1002/ejsp.348>
- Brehm, J. W. (1962). An experiment on coercion and attitude change. In J. W. Brehm & A. R. Cohen (Eds), *Explorations in cognitive dissonance* (pp. 84 – 88). New York: Wiley

- Brehm, J. W. (1966). *A theory of psychological reactance*. New York, NY: Academic Press.
- Brehm, J. W., & Cohen, A. R. (1962). *Explorations in cognitive dissonance*. New York, NY: Wiley. <https://doi.org/10.1037/11622-000>
- Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data?. *Perspectives on Psychological Science*, 6(1), 3–5. DOI: 10.1037/14805-009
- Burkard, A. W., & Knox, S. (2004). Effect of therapist color-blindness on empathy and attributions in cross-cultural counseling. *Journal of Counseling Psychology*, 51(4), 387–397. <https://doi.org/10.1037/0022-0167.51.4.387>
- Chandler, J., Mueller, P., & Paolacci, G. (2014). Nonnaïveté among Amazon Mechanical Turk workers: Consequences and solutions for behavioral researchers. *Behavior Research Methods*, 46(1), 112–130. <https://doi.org/10.3758/s13428-013-0365-7>
- Chandler, J., Rosenzweig, C., Moss, A.J., Robinson, J., & Litman, L. (2019). Online panels in social science research: Expanding sampling methods beyond Mechanical Turk. *Behavior Research Methods*, 51(5), 2022–2038. <https://doi.org/10.3758/s13428-019-01273-7>
- Christ, S. (2013, November 4). *25 common cooking mistakes you may be making*. Lifehack. <https://www.lifehack.org/articles/lifestyle/25-common-cooking-mistakes-you-may-making.html>
- Cohen, A. R. (1962a). A dissonance analysis of the boomerang effect. *Journal of Personality*, 30(1), 75–88. <https://doi.org/10.1111/j.1467-6494.1962.tb02306.x>
- Cohen, A. R. (1962b). An experiment on small rewards for discrepant compliance and attitude change. In J. W. Brehm & A. R. Cohen (Eds.), *Explorations in cognitive dissonance* (pp. 73-78). New York: Wiley.
- Cohen, A. R., Brehm, J. W., & Fleming, W. H. (1958). Attitude change and justification for compliance. *Journal of Abnormal and Social Psychology*, 56(2), 276–278. <https://doi.org/10.1037/h0047070>
- Cohen, A. R. & Latane, B. (1962). An experiment on choice in commitment to counterattitudinal behavior. In J. W. Brehm & A. R. Cohen (Eds), *Explorations in cognitive dissonance* (pp. 88 – 91). New York: Wiley
- Dillard, J. P., & Shen, L. (2005). On the nature of reactance and its role in persuasive health communication. *Communication Monographs*, 72(2), 144–168. <https://doi.org/10.1080/03637750500111815>
- Dobbin, F., & Kalev, A. (2016). Why diversity programs fail. *Harvard Business Review*, 94(7), 14. <https://hbr.org/2016/07/why-diversity-programs-fail>

- Dover, T. L., Major, B., & Kaiser, C. R. (2016a). Diversity policies rarely make companies fairer, and they feel threatening to White men. *Harvard Business Review*. <https://hbr.org/2016/01/diversity-policies-dont-help-women-or-minorities-and-they-make-White-men-feel-threatened>
- Dover, T. L., Major, B., & Kaiser, C. R. (2016b). Members of high-status groups are threatened by pro-diversity organizational messages. *Journal of Experimental Social Psychology*, *62*, 58–67. <https://doi.org/10.1016/j.jesp.2015.10.006>
- Egan Brad, L. C., Spisz, T. J., & Tanega, C. G. (2018). Does “privilege checking” make us less racist, or more? Generation and political orientation matter. *Race and Social Problems*, *11*(1), 1–14. <https://doi.org/10.1007/s12552-018-9246-0>
- Elvira, M. and Town, R. (2001), The effects of race and worker productivity on performance evaluations. *Industrial Relations: A Journal of Economy and Society*, *40*: 571-590. <https://doi-org.ezp-prod1.hul.harvard.edu/10.1111/0019-8676.00226>
- Fazio, R. H., & Olson, M. A. (2003). Implicit measures in social cognition research: Their meaning and use. *Annual Review of Psychology*, *54*(1), 297-327. <https://doi.org/10.1146/annurev.psych.54.101601.145225>
- Federal Reserve Bank of Minneapolis. (2024). *Inflation calculator*. Federal Reserve Bank of Minneapolis. <https://www.minneapolisfed.org/about-us/monetary-policy/inflation-calculator>
- Festinger, L. (1957). A theory of cognitive dissonance. Evanston, IL: Row, Peterson.
- Festinger, L., & Carlsmith, J. M. (1959). Cognitive consequences of forced compliance. *Journal of Abnormal and Social Psychology*, *58*(2), 203-210.
- Frey, F. E., & Tropp, L. R. (2006). Being seen as individuals versus as group members: Extending research on meta-perception to intergroup contexts. *Personality and Social Psychology Review*, *10*(3), 265–280. https://doi.org/10.1207/s15327957pspr1003_5
- Hess, C., Colburn, G., Crowder, K., & Allen, R. (2020). Racial disparity in exposure to housing cost burden in the United States: 1980-2017. *Housing Studies*, 1–21. <https://doi.org/10.1080/02673037.2020.1807473>
- Holden, C. J., Dennie, T., & Hicks, A. D. (2013). Assessing the reliability of the M5-120 on Amazon’s mechanical Turk. *Computers in Human Behavior*, *29*(4), 1749–1754. <https://doi.org/10.1016/j.chb.2013.02.020>
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). Communication and persuasion; Psychological studies of opinion change. New Haven, CT: Yale University Press.

- Janis, I. L., & King, B. T. (1954). The influence of role playing on opinion change. *Journal of Abnormal and Social Psychology*, 49(2), 211–218.
- Kaiser, C. R., Major, B., Jurcevic, I., Dover, T. L., Brady, L. M., & Shapiro, J. R. (2013). Presumed fair: Ironic effects of organizational diversity structures. *Journal of Personality and Social Psychology*, 104(3), 504–519. <https://doi.org/10.1037/a0030838>
- Kalev, A., Kelly, E., & Dobbin, F. (2006). Best practices or best guesses? Assessing the efficacy of corporate affirmative action and diversity policies. *American Sociological Review*, 71(4), 589–617. <https://doi.org/10.1177/000312240607100404>
- Lapierre, M. A., & Aubrey, J. S. (2022). Resisting privilege: Effects of a White privilege message intervention and conservative media use on freedom threat and racial attitudes. *Mass Communication & Society*, 25(3), 407–433. <https://doi.org/10.1080/15205436.2021.1996610>
- Legate, N., & Weinstein, N. (2024). Motivation science can improve diversity, equity, and inclusion (DEI) trainings. *Perspectives on Psychological Science*, 1-16. <https://doi.org/10.1177/17456916231186410>
- Lensmire, T. J., McManimon, S. K., Tierney, J. D., Lee-Nichols, M. E., Casey, Z. A., Lensmire, A., & Davis, B. M. (2013). McIntosh as synecdoche: How teacher education's focus on White privilege undermines antiracism. *Harvard Educational Review*, 83(3), 410–431. <https://doi.org/10.17763/haer.83.3.35054h1418230574>
- Linder, D. E., Cooper, J., & Jones, E. E. (1967). Decision freedom as a determinant of the role of incentive magnitude in attitude change. *Journal of Personality and Social Psychology*, 6, 245-254.
- Luhtanen R., & Crocker J. (1992). A collective self-esteem scale: Self-evaluation of one's social identity. *Personality and Social Psychology Bulletin*, 18(3), 302–318. <https://doi.org/10.1177/0146167292183006>
- McConahay, J. B. (1986). Modern racism, ambivalence, and the Modern Racism Scale. In J. F. Dovidio, & S. L. Gaertner (Eds.), *Prejudice, discrimination, and racism* (pp. 91–125). New York: Academic Press.
- McGlothlin, H. & Killen, M. (2010). How social experience is related to children's intergroup attitudes. *European Journal of Social Psychology*, 40(4), 625–634. <https://doi.org/10.1002/ejsp.733>
- McIntosh, P. (1989). White privilege: Unpacking the invisible knapsack. *Peace and Freedom*, 49, 10–12. https://psychology.umbc.edu/wp-content/uploads/sites/57/2016/10/White-Privilege_McIntosh-1989.pdf

- Miller, R. L., Wozniak, W. J., Rust, M. R., Miller, B. R., & Slezak, J. (1996). Counterattitudinal advocacy as a means of enhancing instructional effectiveness: How to teach students what they do not want to know. *Teaching of Psychology, 23*(4), 215–219. <https://doi.org/10.1207/s15328023top23042>
- Morris, S. G. (2020). Empathy and the liberal-conservative political divide in the U.S. *Journal of Social and Political Psychology, 8*(1), 8–24. <https://doi.org/10.5964/jspp.v8i1.1102>
- Neville, H. A., Lilly, R. L., Duran, G., Lee, R. M., & Browne, L. (2000). Construction and initial validation of the Color-Blind Racial Attitudes Scale (CoBRAS). *Journal of Counseling Psychology, 47*(1), 59–70. <https://doi.org/10.1037//0022-0167.47.1.59>
- Pierson, E., Simoiu, C., Overgoor, J., Corbett-Davies, S., Jenson, D., Shoemaker, A., Ramachandran, V., Barghouty, P., Phillips, C., Shroff, R., & Goel, S. (2020). A large-scale analysis of racial disparities in police stops across the United States. *Nature Human Behavior, 4*, 736–745. <https://doi.org/10.1038/s41562-020-0858-1>
- Plant, E. A., & Devine, P. G. (1998). Internal and external motivation to respond without prejudice. *Journal of Personality and Social Psychology, 75*, 811–832. <https://doi.org/10.1037/0022-3514.75.3.811>
- Plant, E. A., & Devine, P. G. (2001). Responses to other-imposed pro-Black pressure: Acceptance or backlash? *Journal of Experimental Social Psychology, 37*(6), 486–501. <https://doi.org/10.1006/jesp.2001.1478>
- Quarles, C. L., & Bozarth, L. (2022). How the term "White privilege" affects participation, polarization, and content in online communication. *PloS One, 17*(5), 1-21. <https://doi.org/10.1371/journal.pone.0267048>
- Quintana, S. M., & Mahgoub, L. (2016). Ethnic and racial disparities in education: Psychology's role in understanding and reducing disparities. *Theory into Practice, 55*(2), 94-103. <https://doi-org.ezp-prod1.hul.harvard.edu/10.1080/00405841.2016.1148985>
- Ringold, D. J. (2002). Boomerang effects in response to public health interventions: Some unintended consequences in the alcoholic beverage market. *Journal of Consumer Policy, 25*(1), 27–63. <https://doi.org/10.1023/A:1014588126336>
- Rotter, J. (1966). Generalized expectancies for internal versus external control of reinforcement. *Psychological Monographs, 80*(1), 1–28. <https://doi.org/10.1037/h0092976>
- Salles, A., Arora, V. M., & Mitchell, K.-A. (2021). Everyone must address anti-Black racism in health care: Steps for non-Black health care professionals to

take. *JAMA : the Journal of the American Medical Association*, 326(7), 601–602.
<https://doi.org/10.1001/jama.2021.11650>

Spreng, R. N., McKinnon, M. C., Mar, R. A., & Levine, B. (2009). The Toronto Empathy Questionnaire: Scale development and initial validation of a factor-analytic solution to multiple empathy measures. *Journal of personality assessment*, 91(1), 62–71. <https://doi.org/10.1080/00223890802484381>

West, K., Greenland, K., & Laar, C. (2021). Implicit racism, colour blindness, and narrow definitions of discrimination: Why some White people prefer ‘All Lives Matter’ to ‘Black Lives Matter’. *British Journal of Social Psychology*, 60(4), 1136–1153. <https://doi.org/10.1111/bjso.12458>

Woller, K. M. P., Buboltz, W. C., & Loveland, J. M. (2007). Psychological reactance: Examination across age, ethnicity, and gender. *The American Journal of Psychology*, 120(1), 15–24. <http://www.jstor.org/stable/20445379>

Zerega, W. D., Tseng, M. S., & Greever, K. B. (1976). Stability and concurrent validity of the Rotter Internal-External Locus of Control Scale. *Educational and Psychological Measurement*, 36(2), 473–475.
<https://doi.org/10.1177/001316447603600230>