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Freedom, Abortion, and Hypocrisy: The Effect of Hypocrisy on Pro-Life Abortion Attitudes

Emily M. Vance
University of Arkansas, Fayetteville

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Freedom, Abortion, and Hypocrisy: The Effect of Hypocrisy on Pro-Life Abortion Attitudes

A thesis submitted in partial fulfillment
of the requirements for the degree of
Master of Arts in Psychology

by

Emily M. Vance
Saint Joseph's University
Bachelor of Science in Psychology, 2020
Saint Joseph's University
Master of Science in Experimental Psychology, 2021

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University of Arkansas

This thesis is approved for recommendation to the Graduate Council.

Scott Eidelman, Ph.D.
Thesis Director

Anastasia Makhanova, Ph.D.
Committee Member

Bill Levine, Ph.D.
Committee Member

Abstract

Previous research suggests that highlighting the gap between inconsistent values can result in long-term attitude change (Rokeach, 1971), that feeling hypocritical might prompt pro-attitudinal behavior (e.g., Dickerson et al., 1992), and that a reactance decoy makes participants more receptive to subsequent persuasive messages (Schumpe et al., 2020). Drawing from these findings, the purpose of the present study was to investigate whether the impact of induced hypocrisy on pro-life abortion attitudes, an attitude commonly grounded in the value of freedom, depended on a reactance decoy. Consistent with Aronson et al.'s paradigm (1991), participants first publicly advocated for the importance of personal freedom. They were then randomly assigned to read a reactance decoy passage either on gun control (decoy) or daily habits (control). After reading the passage, participants were randomly assigned to complete a freedom questionnaire, either with (hypocrisy) or without (control) an item on whether people should have the freedom to get an abortion. Finally, participants completed a demographic questionnaire. Results indicated that there was not a significant interaction between the hypocrisy and decoy conditions, and that there were also no main effects. Exploratory analyses revealed that more negative abortion attitudes were associated with increased religiosity, attitude certainty about one's opinion on abortion, and conservatism, as well as decreased trait empathy levels. Limitations, such as inadequate sample size and underpowered analyses, are discussed.

Keywords: persuasion, attitude change, abortion attitudes, political psychology

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Freedom, Abortion, and Hypocrisy: The Effect of Hypocrisy on Pro-Life Abortion

Attitudes

“Hypocrisy is a boil. Lancing a boil is never pleasant.”

- High Sparrow, *Game of Thrones*

“Practice what you preach!” is a commonly used phrase that discretely highlights instances of hypocrisy. Despite the frequency with which hypocrisy is addressed in daily conversation and the media, research in this domain is limited. Aronson et al. (1991) developed the induced hypocrisy paradigm to investigate the behavioral consequences of hypocrisy, which is conceptualized as a form of cognitive dissonance. This paradigm has been utilized in contexts such as safe sex practices, driving behavior, and prejudicial attitudes. Results demonstrate how induced hypocrisy prompts participants to adopt pro-attitudinal behavior. However, there may be cases in which the subject of one’s hypocrisy leads to further boosting the gap between one’s attitude and behavior, rather than reconciling the differences. Additionally, whether one’s hypocrisy stems from values versus attitudes, and how psychologically reactant one is, may play a role.

Since hypocritical individuals are evaluated as ‘saying one thing and then doing another,’ hypocrisy may be particularly relevant in issues related to politics, given that individuals advocate for their beliefs in public settings but may not wholeheartedly support them. Attitude change by those deemed as moral leaders may be interpreted positively as moral evolution, or, in contrast, as hypocritical and ingenuine (Kreps et al., 2017). As political tension continues to grow in the United States, being labeled as a hypocrite is increasingly common and is often a method for publicly attacking someone’s character. The frequent address of hypocrisy in politics

raises the question of whether one will be likely to change their political beliefs if their hypocrisy is made salient.

Cognitive Dissonance

Cognitive dissonance refers to the psychological discomfort that results from the pairing of incongruent cognitions and is most often studied in the context of inconsistent beliefs and actions (Brehm, 2007; Festinger, 1957). The resulting discomfort motivates individuals to reconcile differences between their attitudes and actions to reduce the discomfort and eliminate the inconsistency. Since its conception, cognitive dissonance has been studied in various contexts. In their foundational study, Festinger and Carlsmith (1959) found that participants who lied to a confederate about the pleasantness of a task perceived the task as more pleasant themselves. After the concept of cognitive dissonance was established through foundational research, subsequent research aimed to probe boundary conditions that might exist to shed light on the intricacies of dissonance. For example, cognitive dissonance has also been applied to induced compliance procedures to investigate if choice and incentive impact the effect of dissonance. Participants who were given a choice to not comply and had a low incentive to make counter-attitudinal statements on policies exhibited cognitive dissonance and attitude change, suggesting that choice and incentive are important factors in whether dissonance results (Linder et al., 1967). Recently, Cooper and Feldman (2019) provided further evidence of the importance of choice by demonstrating that older participants also experience cognitive dissonance and change their attitudes about raising property taxes to be more positive after advocating for this position in a high-choice condition. As exhibited in the aforementioned studies, researchers tend to find that participants change their attitudes to be consistent with their behavior, but that this effect may be strengthened under certain conditions (see Cooper, 2019 for a review).

Conceptualizing cognitive dissonance as a drive to reduce inconsistency has been met with theoretical questions and challenges. Despite evidence that individuals are motivated to reduce inconsistent cognitions, the scope of the impact of cognitive dissonance is limited by factors such as the conditions of choice, commitment, and consequences. Previous research suggests that individuals are only motivated to reduce these inconsistencies if they are given a choice, if they are in a situation involving high commitment, if the inconsistency leads to an aversive consequence, and if the consequence was predictable (see Cooper, 2019 for a review). However, it should be noted that there is evidence against these claims as well, suggesting that these conditions are not necessary for dissonance to arise, but may instead increase its magnitude (e.g., Harmon-Jones et al., 1996).

While the theory of cognitive dissonance asserts that attitude change results from the desire to reduce psychological discomfort, challenging theories present alternative explanations for why this change occurs. For example, self-perception theory (Bem, 1972) posits that participants observe their own behavior when advocating for a position, and subsequently infer their final attitude based on this observation. Self-presentation theory (Alexander & Knight, 1971; Rosenberg, 1969; Tedeschi et al., 1971), on the other hand, attributes attitude change as an attempt to make an impression on the researcher or to project an identity to themselves and others. Self-affirmation theory (Steele, 1988) focuses on maintaining the integrity of the self and doing so through explanation, rationalization, or action (e.g., changing one's attitude to be consistent with the position they publicly advocated for to reduce threat to their self-image). Despite these varying explanations, the theory of cognitive dissonance seems to have emerged as supported. This theory continues to be a popularly studied concept in the social psychology realm and has been applied to related areas of research, such as hypocrisy.

Hypocrisy

Hypocrisy, a form of cognitive dissonance that motivates people to act (Stone & Fernandez, 2008), is commonly conceptualized as when one publicly states an attitude (often about how others should behave), and then subsequently acts in a way that contradicts the aforementioned attitude (e.g., Alicke et al., 2013; Barden et al., 2005; Jordan et al., 2017). Some facets of hypocrisy that are commonly mentioned in dictionary definitions of the word, such as deceit and immorality, rarely appear in lay definitions of hypocrisy, which tend to focus more on contradictory attitude-behavior pairs and the imposition of standards on others (Laurent & Clark, 2019).

Unsurprisingly, people do not like hypocrites (e.g., Barden et al., 2005; Gilbert & Jones, 1986; Jordan et al., 2017). To explain this distaste, Jordan et al. proposed a theory of false signaling, suggesting that hypocrites falsely signal their moral goodness by condemning immoral behavior, and then act in a way which contradicts those moral signals. Attitude-behavior inconsistencies are deemed the most hypocritical, followed by attitude-attitude and behavior-behavior inconsistencies (Laurent & Clark, 2019). The false signals associated with hypocrisy mislead others and elicit moral outrage. Due to this false signaling, hypocrites are evaluated more negatively with regard to how good of a person and how likable they are in comparison to liars (Jordan et al., 2017).

Despite the negative connotations associated with being hypocritical, hypocrisy could actually be harnessed to inspire positive change. To investigate if feeling hypocritical prompts participants to adopt pro-attitudinal behaviors, Aronson et al. (1991) developed the induced hypocrisy paradigm. The induced hypocrisy paradigm involves two steps: salience of normative behavior and past transgressions. The salience of normative behavior step involves publicly advocating for a position, through methods such as writing or delivering speeches (e.g., Priolo &

Leigeois, 2008; Son Hing et al., 2002) or signing petitions (e.g., Dickerson et al., 1992). The past transgressions step involves illustrating the gap between the behavior one advocates for and their actual behavior regarding that position, through methods such as listing (e.g., Aronson et al., 1991) or describing past transgressions (e.g., Harmon-Jones et al., 2003). Though the order of these steps has been interchanged in some previous research, Barden et al. (2005) found that perceived hypocrisy of others was greatest when behaviors followed the publicly stated attitudes, rather than attitudes following behavior. In other words, the amount of perceived hypocrisy was greatest when participants publicly advocated for a position and then acted in contrast to that position.

The induced hypocrisy paradigm has been utilized to experimentally arouse dissonance and induce hypocrisy and has been applied to contexts such as safe sex practices, water conservation, and religious practices (see Priolo et al., 2019 for a review). In the foundational study concerning the AIDS epidemic, participants who advocated for condom use but described instances in which they failed to use condoms indicated greater behavioral intentions to use condoms in the future (Aronson et al., 1991). In another study, participants who advocated for water conservation by signing a petition but were made aware that their showering behavior was wasteful took shorter showers (Dickerson et al., 1992). As further evidence, participants who advocated for road safety by signing a flyer on driving the speed limit but whose past speeding transgressions were made salient were more likely to volunteer to have their driving monitored (Fointiat, 2004). The induced hypocrisy paradigm has also been applied in the context of prejudice reduction. Aversively racist participants who advocated for treating minority students fairly and then described instances in which they did not treat Asian students fairly exhibited a reduction in prejudicial behavior (Son Hing et al., 2002). The results of this study, among others,

provide evidence that the induced hypocrisy paradigm can be applied in social contexts to not only change behavior, but to also inspire positive social change. Given these results, the adoption of pro-attitudinal behavior is evident in several areas of hypocrisy research.

Despite evidence that induced hypocrisy leads participants to adopt pro-attitudinal behavior, there may be cases in which the gap between attitudes and behavior is further boosted, rather than reconciled. For example, in a study on religious practices, participants who advocated for certain religious practices but had not recently engaged in them bolstered their religious attitudes (Yousaf & Gobet, 2013). The resulting bolstered religious attitudes oppose the attitude reconciliation effect that tends to be evident in dissonance research. Thus, some studies have found that induced hypocrisy can prompt participants to adopt pro-attitudinal behavior, whereas others have found a lack of reconciliation when feeling hypocritical, further boosting the gap between attitude and behavior.

Values and Attitudes

Much of the work on induced hypocrisy focuses on specific attitudes rather than values, and it should be noted that there is an important distinction between the two. Values are considered more fundamental to one's character than attitudes and are commonly conceptualized as determinants of one's attitudes and behavior (Rokeach, 1971; Schwartz, 1992). Though there are several different theories concerning values, they are largely similar in that they posit that values are overarching belief systems that govern behavior, albeit more strongly than attitudes might. Additionally, values can be categorized as either terminal or instrumental. Terminal values refer to ideal end-states, such as happiness, equality, freedom, and wisdom. Instrumental values refer to ideal types of behavior, such as being helpful, independent, intellectual, and polite (Rokeach, 1974).

Previous research on terminal and instrumental values suggests that the importance of these values changes over time, and varies across races and genders (Rokeach, 1974). Additionally, highlighting inconsistencies in one's values and attitudes can result in long-term attitude change. Across several studies, Rokeach (1971) demonstrated the importance of freedom and equality, both terminal values. Rokeach first asked university student participants to rank terminal values in order of importance and to state their opinion on civil rights demonstrations. Then, participants viewed the average rankings of other students. Attention was drawn to how many students value their own freedom, by ranking freedom highly, but do not value the freedom of others, by ranking equality much lower. Witnessing states of self-dissatisfaction, participants compared their rankings of values and opinion on civil rights to average responses by other students. When participants were made aware that they held incompatible values or an incompatible attitude and value in relation to equality and freedom, they exhibited significant increases in how much they valued equality, as well as demonstrated behavioral changes, such as donating money to a civil rights organization. These effects were evident more than a year after the initial experiment, which suggests that interventions that tackle inconsistencies among one's values and attitudes have long-term implications both attitudinally and behaviorally (Rokeach, 1971). Thus, freedom is an important value that could be targeted to induce attitudinal and behavioral change, or potentially harnessed to shift particularly rigid beliefs.

Psychological Reactance

Given that research on inconsistent values and the induced hypocrisy paradigm attempts to shift attitudes and behavior, they may be regarded as persuasive attempts, and thus pose a threat to one's freedom and elicit psychological reactance. Psychological reactance occurs when individuals perceive threats to their freedom, and often involves hostile or negative feelings in

response to persuasive messages (Brehm, 1966; Brehm & Brehm, 1981). To combat these feelings, individuals may attempt to restore their freedom either through behavioral or attitudinal means (e.g., Burgoon et al., 2002). This attempt to restore freedom may result in increased support for or tendency to perform the restricted behavior (Wright & Brehm, 1982). Previous research suggests that persuasive efforts to control one's thoughts (i.e., imposing a standard on how one should think) versus one's behavior (i.e., imposing a standard on how one should behave) are regarded as more restrictive. Additionally, efforts to control thoughts elicit greater levels of anger and negativity, as well as lower levels of motivation to engage in the requested behaviors among participants (Ma et al., 2019).

To combat negative reactions to persuasive attempts, recent research suggests that a reactance decoy can first be presented to generate psychological reactance, giving participants an opportunity to express their feelings toward the decoy and reestablish their freedom before seeing a target message, and thus reduce reactance toward the subsequent target message (Schumpe et al., 2020). Though a novel idea, reactance decoys were successfully applied to persuasive attempts regarding buying target objects. Across several studies, researchers found that the persuasiveness of a target message about a purchasable object was increased after including a reactance decoy for a different object (Schumpe et al., 2020). The reduction of psychological reactance and increase in persuasiveness for the target message that is associated with the incorporation of a reactance decoy bears significant practical implications, such as in the world of political psychology.

Current Research

Previous research suggests that highlighting the gap between inconsistent values can result in long-term attitude change (Rokeach, 1971), that feeling hypocritical might prompt pro-

attitudinal behavior (e.g., Dickerson et al., 1992), and that a reactance decoy makes participants more receptive to subsequent persuasive messages (Schumpe et al., 2020). Thus, the purpose of the present study was to investigate if feeling hypocritical about a value that one publicly advocates for would result in attitude shifts pertaining to a related political issue, and whether a reactance decoy would impact this shift. Specifically, I investigated if those with pro-life beliefs would temper their attitudes on abortion if made to feel hypocritical after advocating for the importance of personal freedom. Freedom was the value of interest, given that it is consistently recognized as one of the most important values, and because values govern behavior more strongly than attitudes.

Pilot data¹ suggests that participants might bolster their anti-abortion attitudes when feeling hypocritical, rather than exhibit attitude reconciliation, which is commonly found in dissonance research, and thus demonstrates a need for a reactance decoy, with which one might reestablish their freedom and be more persuaded by a target message. The present study had a between-subjects, 2 (group: hypocrisy, control) \times 2 (reactance decoy: gun control, control) design. Based on the aforementioned pilot data, I predicted that participants in the hypocrisy condition would bolster negative attitudes on abortion in comparison to participants in the control condition. However, I predicted that participants in the hypocrisy condition who viewed a reactance decoy would be more likely to temper their attitudes on abortion than participants in the hypocrisy condition who did not view a reactance decoy because those who viewed a reactance decoy were given the opportunity to reestablish their freedom and vent their reactance. To combat limitations from the pilot study, I aimed to strengthen the manipulation by altering the

¹ In this pilot study, I investigated the effect of induced hypocrisy on abortion attitudes. Participants were randomly assigned to a hypocrisy or control condition and completed a similar essay task to the one described in this study. Participants then read a faux essay analysis as step two of the paradigm. Though results were not significant, group means were opposite the hypothesized direction – the hypocrisy group became more negative toward abortion.

past transgressions step (step two) of the induced hypocrisy paradigm, as well as manipulation checks by adding increased detail and more specific questions, respectively.

Method

Participants

Participants were 166 students recruited from the University of Arkansas participant pool based on three eligibility items included in a prescreen questionnaire that was distributed to the participant pool at the start of the semester. The prescreen included three multiple choice questions that instructed participants to indicate their views on abortion and gun control. Participants who indicated that they 1) were pro-life, 2) thought that there should either be no or some gun control regulations, and 3) thought current gun control regulations should either be less strict or stay the same as they were at the time of the prescreen, were eligible to participate in this study. This study did not restrict participants with regard to age, gender, sexuality, or race/ethnicity. To determine how many participants were needed to detect a small effect of .02 with .80 power for a moderation effect, an *a priori* power analysis was conducted on R Studio version 1.2.5042 via R version 4.2.2. (R Core Team, 2023). Results indicated that the required sample size was 387 participants. Due to recruitment and time constraints, I recruited the highest number of participants as possible over two academic semesters, up to the required sample size.

Of the 166 participants, 96 identified as women (57.83%). Most participants were White (87.95%) and identified as Christian (96.39%). The sample was college-aged ($M = 18.87$, $SD = 1.03$, range = 18 - 24) and moderately conservative ($M = 5.93$, $SD = 0.89$, range = 2 - 7). The study was expected to take between 30 to 45 minutes to complete, and participants were compensated with course credit for participating. Additional demographic information is included in Table 1.

Procedure

Upon arriving for the study, participants were told about an upcoming convention, *Values and Democracy*, that would take place in a nearby city during the upcoming summer.

Researchers explained that state and federal representatives partnered with the Departments of Psychological Science and Political Science, as well as the School of Law, to gather student opinions to be shared at the convention. Participants were told that they would write a brief essay, read a passage, and then be randomly assigned to complete questionnaires on topics that may be addressed at the convention. They were told that the essay and questionnaire responses would be anonymous and shared with representatives. After indicating their informed consent to participate, participants began the study.

First, participants wrote an essay on the value of personal freedom. Upon completion of the essay, participants were instructed to submit the essay. After submitting the essay, participants were randomly assigned to a decoy condition. They were instructed to read a brief passage before completing various questionnaires. Participants in the decoy condition were instructed to read a brief passage on gun control and were told that the passage was meant to persuade them (Schumpe et al., 2020), whereas those in the control condition read a non-persuasive essay on daily habits. After reading the passage, participants completed a questionnaire to measure their perceived threat to freedom, as well as their attitudes about the passage, thus venting their reactance. After completing the measure on state psychological reactance, participants were told that they would be randomly assigned to answer questions on topics that would be discussed at the upcoming convention. At this point, participants were randomly assigned to either the hypocrisy or control condition and completed corresponding freedom questions for each condition. After completing the respective freedom questions, participants completed scales to measure abortion attitudes, whether the manipulation was

successful, trait psychological reactance, and demographic information. Finally, participants were debriefed and dismissed.

Materials

Essay on personal freedom

Participants were instructed to list three important personal freedoms that they believed all citizens should have. Then, they were prompted to write an essay in which they advocated for why personal freedom is important, why each person should have the freedom to do what they wish in their life, and why it is fundamental to the American identity. They were told to incorporate the three examples of personal freedom that they listed and explain why they are important. Completion of the essay served as the salience of normative behavior step in the induced hypocrisy paradigm (Aronson et al., 1991), given that participants were publicly advocating for a belief.

Reactance Decoy

Based on methods by Schumpe et al. (2020), participants were randomly assigned to a decoy condition. The experimental reactance decoy was a brief persuasive essay on gun control regulations derived from materials created by Taber and Lodge (2006). To generate greater psychological reactance, participants were forewarned of the persuasive intent of the decoy before reading the experimental decoy on gun control. The control decoy was a brief non-persuasive essay on daily habits derived from information on public internet sites.

State Psychological Reactance

Perceived threat to freedom was assessed using a four-item measure (Dillard & Shen, 2005). Items were measured on a 1 (*not agree at all*) to 7 (*strongly agree*) scale (e.g., “The essay/analysis threatened my freedom to choose.”) and were averaged to form a state reactance index ($\alpha = .92$). Higher averaged scores indicate greater perceived threat to one’s freedom.

Freedom Questionnaire

Created for this study, the Freedom Questionnaire is a nine-item questionnaire that asks participants to indicate their agreement with citizens having various freedoms (e.g., freedom to practice one's religion). Items are measured on a scale from 1 (*definitely should not have the freedom*) to 7 (*definitely should have the freedom*). Participants were randomly assigned to complete one of two versions of this questionnaire. Those in the control condition saw the nine-item version of the questionnaire, whereas those in the hypocrisy condition saw the same nine items plus an additional item, asking about the freedom to an abortion. The Freedom Questionnaire served as the past transgressions step in the induced hypocrisy paradigm (Aronson et al., 1991), illustrating the gap between participants' actual beliefs about freedoms versus what they advocated for when writing the essay (i.e., the importance of personal freedom). I anticipated that participants would support all freedoms listed, with abortion being the only contentious freedom in the questionnaire. Supporting all freedoms except abortion would visually and conceptually illustrate a gap in the support for personal freedom to participants in the hypocrisy condition.

Abortion Attitude Certainty Scale

The Abortion Attitude Certainty Scale is a three-item scale that measures how certain participants are about their opinions on abortion. Items were derived and adapted from methods summarized by Krosnick and Abelson (1992). Participants indicated a response for each item on a scale from 1 to 9, with the endpoints changing in meaning to correspond to the respective question. For example, one item was "How sure are you about your opinion on abortion rights?" and scores ranged from 1 (*not at all sure*) to 9 (*extremely sure*). One item was reverse scored,

and then all items were averaged to form a certainty index, with higher averaged scores indicating more certainty about one's attitudes on abortion ($\alpha = .89$).

Abortion Attitude Scale

The Abortion Attitudes Scale (Stets & Leik, 1993) is a 20-item scale that measures three facets of abortion attitudes: availability, morality, and autonomy. Items are grouped into three subscales and are measured on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The availability subscale includes 10 items (e.g., "Abortion should be available through public clinics.") which were averaged to form an availability index. Higher averaged scores indicate the belief that abortions should be available. The morality subscale includes seven items (e.g., "Abortion is murder."), all of which were reverse scored and averaged to form a morality index. Higher averaged scores indicate the belief that abortion is morally acceptable. The autonomy subscale includes three items (e.g., "Abortion should be entirely the woman's decision."), two of which were reverse scored. Items were averaged to form an autonomy index. Higher averaged scores indicate the belief that a woman should have autonomy in an abortion decision. Items from all subscales were collapsed into an overall abortion attitude score, with higher scores indicating greater support for abortion ($\alpha = .90$).

Hong Psychological Reactance Scale

The Hong Psychological Reactance Scale (Hong & Faedda, 1996) is an 11-item scale that measures trait psychological reactance. Items were measured on a scale from 1 (*strongly disagree*) to 5 (*strongly agree*) (e.g., "Regulations trigger a sense of resistance in me.") and were averaged to form a trait reactance index ($\alpha = .77$). Higher scores indicate greater trait psychological reactance.

Demographic Questionnaire

The demographic questionnaire included items that assess participants' age, gender, race/ethnicity, political ideology, and religiosity (Cohen et al., 2006). Participants also indicated how uncomfortable, contradictory, and hypocritical they felt after completing the freedom questionnaire, which served as a manipulation check.

Results

Manipulation Checks

To investigate whether the manipulations were successful, I conducted several manipulation checks. An alpha level of .0125 was adopted as a Bonferroni correction to reduce Type I Error. For a manipulation check of the reactance decoy, I conducted a Welch's t -test with decoy (gun control, control) as the categorical independent variable and the state psychological reactance index as the continuous dependent variable. There was a significant difference in state reactance levels between groups, $t(145.30) = -15.12$, $p < .001$. Participants in the gun control condition ($M = 4.40$, $SD = 1.35$) experienced more state reactance than those in the control condition ($M = 1.68$, $SD = 0.93$).

For a manipulation check of the freedom questionnaire (the past transgressions step in the induced hypocrisy paradigm), I conducted t -tests with hypocrisy group (hypocrisy, control) as the categorical independent variable and the single item measures of how uncomfortable, contradictory, and hypocritical participants felt after completing the freedom questionnaire as the continuous dependent variables, respectively. Items were not averaged to form an index due to low internal consistency ($\alpha = .57$). There were not significant differences in how uncomfortable, $t(163) = -1.57$, $p = .119$, contradictory, $t(164) = 0.20$, $p = .842$, or hypocritical, $t(164) = 0.64$, $p = .522$, participants felt between groups. Descriptive statistics for all manipulation check items are in Table 2.

Primary Analyses

To investigate the effect of hypocrisy and a reactance decoy on abortion attitudes of pro-life participants, I conducted two moderated regressions with hypocrisy group (hypocrisy, control) as the categorical predictor variable, reactance decoy (gun control, control) as the moderator, and abortion attitudes, as measured by the single item feeling thermometer and averaged index of the Abortion Attitudes Scale (AAS) as the continuous outcome variables. For the hypocrisy group variable, hypocrisy was contrast coded as 0.5, and control was coded as -0.5. For the decoy group variable, gun control decoy was contrast coded as 0.5, and control was coded as -0.5.

For the moderated regression with the feeling thermometer as the outcome variable, there was not a main effect of hypocrisy condition ($B = 3.82, p = .219, \Delta R^2 = 0.01$) or decoy condition ($B = -0.97, p = .755, \Delta R^2 = .01$), and there was not an interaction ($B = -1.79, p = .774, \Delta R^2 = 0.00$) (Figure 1). Similarly, for the moderated regression with the AAS index as the outcome variable, there was not a main effect of hypocrisy condition ($B = 0.06, p = .524, \Delta R^2 = 0.00$) or decoy condition ($B = 0.07, p = .491, \Delta R^2 = 0.00$), and there was not an interaction ($B = 0.06, p = .774, \Delta R^2 = 0.00$) (Figure 2). Group means are reported in Table 3.

Exploratory Analyses

I conducted several exploratory analyses to further probe the data.

Gender and abortion attitudes

To investigate if pro-life men and women differ on abortion attitudes, I conducted two independent samples *t*-tests. There was a marginal significant difference between men and women on the feeling thermometer item, $t(162) = 1.97, p = .050$, such that men ($M = 16.49, SD = 21.81$) felt more positively about abortion than women ($M = 10.38, SD = 17.79$). However, there

was not a significant difference between men and women on the AAS index, $t(157) = 0.77, p = .444$.

Abortion attitudes, political ideology, attitude certainty, reactance, and religiosity

To investigate the relationships among continuous variables, bivariate correlations were conducted. Abortion attitudes, as measured by the AAS index, were significantly negatively related to political ideology ($r = -.27, p < .01$), abortion attitude certainty ($r = -.57, p < .01$), and level of religiosity ($r = -.53, p < .01$), but positively related to trait reactance levels ($r = .18, p < .05$). Similar results were found when using the feeling thermometer as a measure of abortion attitudes and can be found in Table 4.

Discussion

The purpose of the present study was to investigate if feeling hypocritical about freedom, a value that one publicly advocated for, would result in attitude shifts pertaining to abortion, and whether a reactance decoy would impact this shift among pro-life participants. Regarding main effects, I predicted that participants in the hypocrisy condition would bolster negative attitudes on abortion in comparison to participants in the control condition. Additionally, I predicted an interaction between hypocrisy group and reactance decoy group, such that participants in the hypocrisy condition who viewed a reactance decoy would be more likely to temper their attitudes on abortion than participants in the hypocrisy condition who did not view a reactance decoy.

The primary hypotheses were not supported. There were no main effects of hypocrisy condition or decoy condition, nor was there an interaction between the two. These variables did not significantly predict abortion attitudes, suggesting that the induced hypocrisy paradigm, coupled with a reactance decoy, was not successful at tempering pro-life abortion attitudes. These findings contrast with much of the previous research on induced hypocrisy, which found that induced hypocrisy prompts pro-attitudinal behavior (e.g., Aronson et al., 1991; Dickerson et

al., 1992; Fointiat, 2004; Son Hing et al., 2002). Given that there were no significant effects in general, the results of the present study also contrast with Yousaf and Gobet's (2013) findings that induced hypocrisy can lead to bolstering effects.

Several exploratory analyses were conducted to further probe the data. Results indicated that religiosity, attitude certainty, and political ideology were all significantly negatively related to abortion attitudes among pro-life participants, such that less positive abortion attitudes were associated with increased religiosity, attitude certainty about one's opinion on abortion, and conservatism. These findings are unsurprising, given how people commonly associate their views on abortion with religion and conservative ideology, and how attitudes that are more certain are more resistant to persuasive attacks (e.g., Berger & Mitchell, 1989; Fazio & Zanna, 1978). Findings on gender differences were mixed; one test indicated that men had more positive abortion attitudes than women, whereas another indicated that there were no gender differences. Mixed results may be due to conducting underpowered analyses, given that the participants in the study predominantly identified as female. These findings (or lack thereof) on gender are interesting, given that a previous study found that women were more likely to change their views on abortion in a liberal direction than men (Lewis, 1973).

Thus far, no previous research has investigated the induced hypocrisy paradigm as a persuasion technique, nor a reactance decoy, in relation to abortion attitudes. However, there is some previous research on factors that may impact abortion attitudes. The first study to test this idea was conducted roughly 60 years ago and investigated how educational interventions impact abortion attitudes. Small group discussion resulted in the greatest attitude change toward a more liberal view of abortion, whereas a film that highlighted a successful birth resulted in change toward a more conservative view of abortion (Lewis, 1973). Since then, very few studies have

been conducted to directly test how to shift abortion attitudes, and instead, have focused on factors that might be indirectly related or relevant to abortion attitudes.

One factor that may impact one's attitude toward abortion is evaluative extremity – a measure of attitude strength. Evaluative extremity refers to the degree to which one opposes or favors a particular attitude object. Unsurprisingly, previous research found that evaluative extremity is related to resistance to change (e.g., Ewing, 1942, Osgood & Tannenbaum, 1955). A previous study investigated how various facets of attitude strength, such as extremity, contribute to the stability of an attitude. This study investigated various socio-political issues, one of which was abortion. Results suggested that Time 1 attitudes on legalized abortion were more likely to predict Time 2 attitudes if the attitudes were extreme, such that Time 1 and Time 2 attitudes for those with extreme attitudes were highly related ($r = .93$) (Prislin, 1996). Similarly, Huckfeldt and Sprague (2000) found that nearly 90% of participants who either strongly opposed or supported abortion indicated that their opinion was very unlikely to change, whereas only 40% of those with views at the 'midpoint' indicated this response. These findings, though from a different socio-political era, may explain why participants were resistant to change in the present study. I recruited participants who identified as pro-life, rather than participants who had moderate views on abortion. It is possible that these views could be considered extreme and thus be resistant to change. Future research will aim to recruit participants that vary on abortion attitudes to investigate how the extremity of one's abortion attitudes contributes to the resistance of attitude change.

Another factor that may be important in shifting abortion attitudes is intellectual humility, the ability to accurately view one's intellectual strengths and weaknesses and negotiate differences in an interpersonally respectful manner (Hook et al., 2015). In a study on religious

disagreements and intellectual humility, attitude change on contentious issues, such as gay marriage and abortion, was greatest when participants reported levels of high intellectual humility themselves and perceived high levels in their conversation partner (Rodriguez et al., 2019). Though actual and perceived intellectual humility were not manipulated, it would be interesting to investigate how receptive pro-life participants are to pro-choice persuasive messages if the message is delivered by someone who they perceive to have high intellectual humility. On the other hand, it may be important to investigate how participants are resisting persuasion despite the use of methods that typically result in attitude change. Several strategies for resisting persuasion have been identified, including attitude bolstering and counterarguing. Previous research indicates that attitude bolstering and counterarguing are the strategies most likely to be used when one's attitudes on abortion are challenged, and that participants are generally confident in their attitude toward abortion and will use that confidence as a means of resisting persuasion as well (Jacks & Cameron, 2003). Thus, future studies will also aim to qualitatively assess how participants resist persuasive messages on abortion, as well as address various limitations from the present study.

In the present study, there were several potential limiting factors. First, although our reactance decoy manipulation was successful (exhibited by higher levels of state reactance for those who saw a gun control decoy compared to the control decoy about daily habits), the hypocrisy manipulation was not successful. There were no differences in how uncomfortable, contradictory, or hypocritical participants felt when completing the past transgressions step of the induced hypocrisy paradigm (i.e., the Freedom Questionnaire). This null finding may be due to a weak manipulation or inadequate manipulation check measures. Though the Freedom Questionnaire did attempt to visually illustrate a discrepancy between advocating for freedom

and not supporting abortion, it is possible that it was not successful at doing so. Past research illustrated this gap through methods such as listing (e.g., Aronson et al., 1991) or describing (e.g., Harmon-Jones et al., 2003) past transgressions. It may be that the Freedom Questionnaire did not adequately highlight past transgressions as did previously used methods. It is also possible that pro-life participants do not view abortion as a freedom issue for a woman, but instead, as a freedom issue for a fetus. If that is the case, then participants would likely be resistant to persuasion from this perspective. Future studies will probe this idea by asking participants, both qualitatively and quantitatively, how participants form their opinions on abortion. For example, we will investigate who pro-life participants are concerned for in an abortion situation: the fetus, the mother, or another party. Based on those results, I can more accurately tailor persuasive interventions to tackle participants real-world abortion concerns. Additionally, it should also be noted that the manipulation check items may not be sufficient for gauging levels of hypocrisy, given that internal consistency among items was low. I will also strive to better capture levels of hypocrisy in future studies.

Potentially the most limiting factor in the current study was sample size. Due to eligibility and recruitment constraints, it was difficult to reach the required sample size. Thus, the current study was severely underpowered and not equipped to successfully detect the hypothesized effects. The *a priori* power analysis indicated that 387 participants were needed to detect a small effect for an interaction, and with 166 participants, more than half of the required sample size was not collected. Non-significant findings may be related to low power. Once the full sample size is collected, I will reconduct all previously mentioned analyses, as well as new analyses, such adding gender or political ideology as additional predictors in the primary analyses.

The present study aimed to temper pro-life abortion attitudes through the implementation of the induced hypocrisy paradigm and a reactance decoy. Though the primary hypotheses were unsupported, exploratory analyses revealed interesting findings about factors that do significantly relate to abortion attitudes. Additionally, given the aforementioned limitations, future research aims to strengthen the induced hypocrisy manipulation, strengthen manipulation check items to more accurately gauge levels of hypocrisy, and increase sample size to reach the required sample size as determined by an *a priori* power analysis. Future research will also further probe the relationship among abortion attitudes, induced hypocrisy, and reactance decoys, as well as implement other persuasive techniques. Previous research indicates that evaluative extremity, intellectual humility, and persuasion resistance techniques may be factors that are important in attitude change regarding abortion. Thus, future studies will also aim to expand variables that are captured to better understand one's ability to be resistant to or influenced by persuasive attempts about abortion. As several states across the nation take action to ban access to abortion, which has serious implications for women's reproductive health, it is increasingly important to determine how abortion attitudes might be altered through persuasive techniques and which factors contribute to this effect.

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Tables

Table 1.

Demographic information for participants.

	<i>N</i>	<i>%</i>
Race		
American Indian or Alaskan Native	4	2.41
Asian	2	1.20
Hispanic, Latino, or Spanish Origin	7	4.22
Middle Eastern or North African	1	0.60
Native Hawaiian or Pacific Islander	1	0.60
White	146	87.95
More than one	4	2.41
Did not disclose	1	0.60
Gender Identity		
Male	70	42.17
Female	96	57.83
Religious Identity		
Christian	160	96.39
Muslim	1	0.60
Agnostic	2	1.20
Other	3	1.81
Experimental Condition		
Hypocrisy x Decoy	42	25.30
Hypocrisy x Control	42	25.30
Control x Decoy	41	24.70
Control x Control	41	24.70
	<i>M</i>	<i>SD</i>
Age	18.87	1.03
Political Ideology	5.93	0.89

Table 2.
Descriptive statistics for manipulation check items.

	Gun Control		Control		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
State Reactance	4.40	1.35	1.68	0.93	-15.12	< .001

	Hypocrisy		Control		<i>t</i>	<i>p</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Uncomfortable	2.39	1.83	1.98	1.52	-1.57	.119
Contradictory	2.45	1.61	2.50	1.47	0.20	.842
Hypocritical	1.81	1.28	1.94	1.32	0.64	.522

Table 3.*Group means on primary dependent variables.*

	Hypocrisy + Decoy		Hypocrisy + Control		Control + Decoy		Control + Control	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
Thermometer	13.90	18.48	15.76	20.85	10.9	19.76	11.05	20.12
AAS Index	2.03	0.59	1.93	0.66	1.93	0.69	1.89	0.61
Attitude Certainty	7.54	1.59	7.80	1.35	7.89	1.41	7.92	1.42

Note. Thermometer refers to the single item feeling thermometer measure of abortion attitudes.
AAS Index refers to the averaged index of the Abortion Attitudes Scale.

Table 4.*Means, standard deviations, and correlations with confidence intervals.*

Variable	<i>M</i>	<i>SD</i>	1	2	3	4	5
1. Feeling Thermometer	12.95	19.75					
2. AAS Index	1.94	0.63	.69** [.60, .76]				
3. Political Ideology	5.93	0.89	-.21* [-.35, -.06]	-.27* [-.41, -.12]			
4. Certainty Index	7.79	1.44	-.60** [-.69, -.50]	-.57** [-.67, -.45]	.36** [.21, .48]		
5. Trait Reactance	2.84	0.56	.08 [-.08, .23]	.18 [.02, .32]	-.10 [-.25, .05]	.01 [-.14, .16]	
6. Religiosity Index	5.71	1.21	-.41** [-.53, -.27]	-.53** [-.63, -.40]	.26** [.11, .40]	.45** [.32, .57]	-.25** [-.38, -.10]

Note. *M* and *SD* are used to represent mean and standard deviation, respectively. Values in square brackets indicate the 95% confidence interval for each correlation. * indicates $p < .05$. ** indicates $p < .01$.

Figures

Figure 1.

Hypocrisy x decoy moderated regression plot with feeling thermometer as the outcome variable.

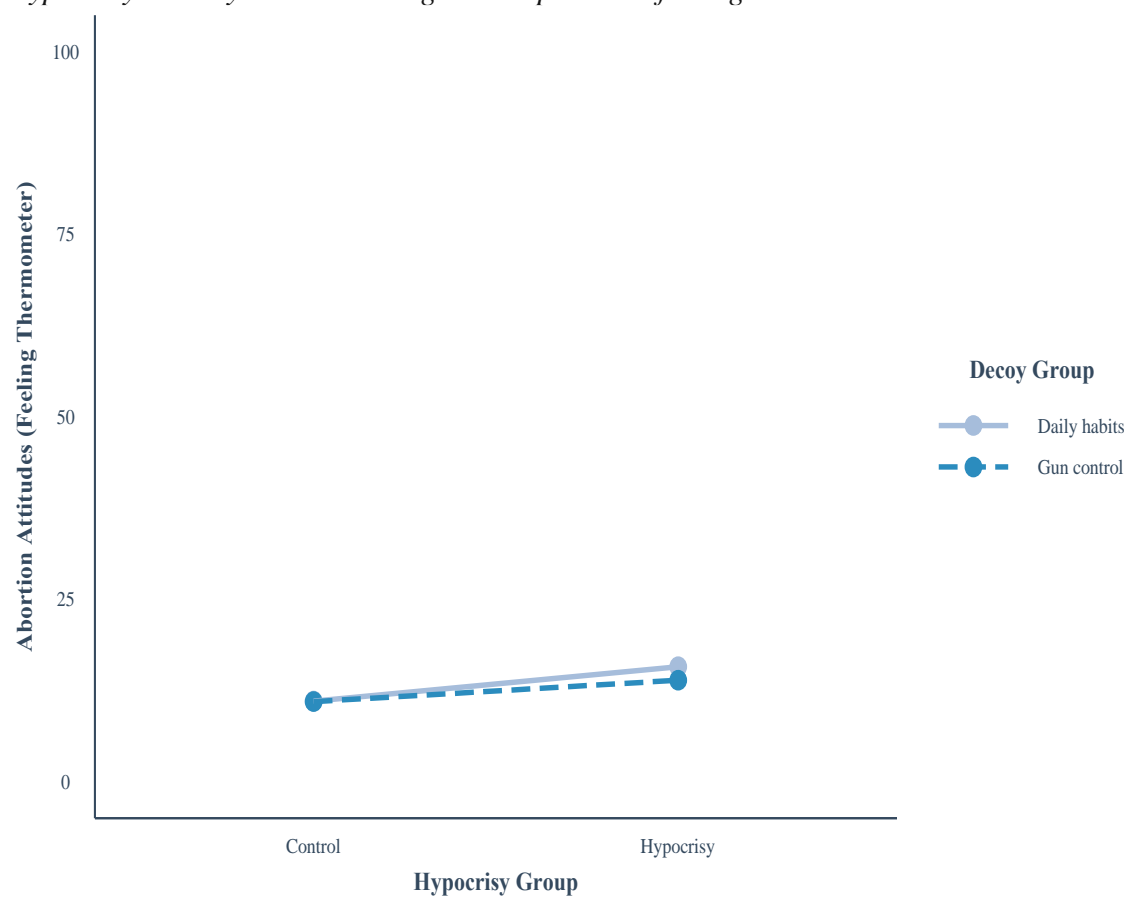
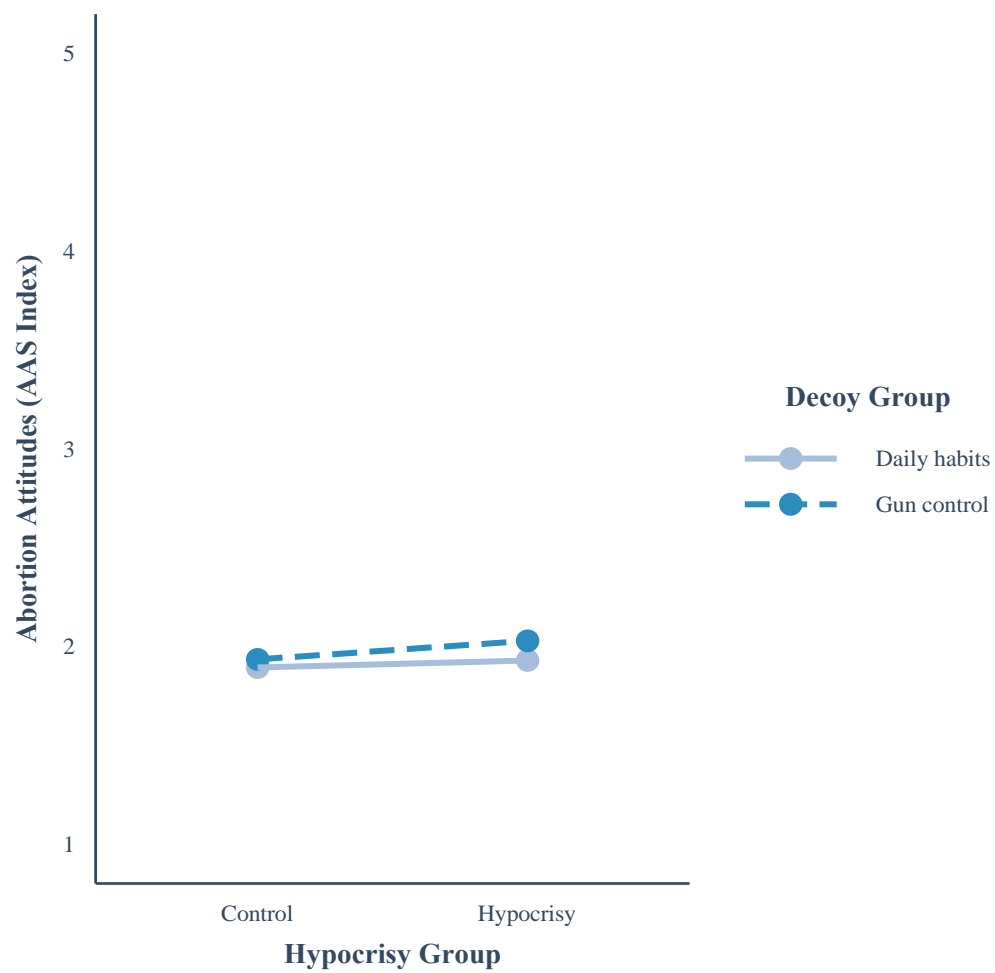


Figure 2.

Hypocrisy x decoy moderated regression plot with AAS Index as the outcome variable.



Appendix

Research Protocol Approval Letter



To: Scott H Eidelman
From: Justin R Chimka, Chair
IRB Expedited Review
Date: 12/14/2021
Action: **Exemption Granted**
Action Date: 12/14/2021
Protocol #: 2112374564
Study Title: Beliefs and Attitudes

The above-referenced protocol has been determined to be exempt.

If you wish to make any modifications in the approved protocol that may affect the level of risk to your participants, you must seek approval prior to implementing those changes. All modifications must provide sufficient detail to assess the impact of the change.

If you have any questions or need any assistance from the IRB, please contact the IRB Coordinator at 109 MLKG Building, 5-2208, or irb@uark.edu.

cc: Emily Vance, Investigator