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Limits of the Bogus Pipeline Condition: An Examination of Null Findings in an Experimental Study

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This study examined the impact of three experimental conditions on antisemitism, right-wing authoritarianism (RWA), religious fundamentalism, and social desirability. Participants ($N = 102$) were university students (74.5% women; 49% non-Hispanic White/European American). Participants were randomly assigned to experimental conditions (i.e., control, bogus pipeline, altered bogus pipeline) and completed measures of demographics, social desirability, antisemitism, RWA, and religious fundamentalism. Analyses were conducted to examine differences in study variables across experimental groups. Results revealed significant differences in social desirability across bogus pipeline and altered bogus pipeline conditions, with social desirability being significantly lower in the bogus pipeline condition. Results were nonsignificant for antisemitism, RWA, and religious fundamentalism. Findings highlight potential limits in the efficacy of the bogus pipeline condition.

Keywords: Antisemitism, Authoritarian Personality, Experimental Study, Socially Desirable Response Bias, Prejudice responsiveness, psychological safety, educational psychology

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Introduction

It is critical to conduct research examining antisemitism and right-wing authoritarianism (RWA) given the overall increase in antisemitic incidents in the United States (ADL, 2021) and the number of Americans who identify as right-wing authoritarians (Relman, 2021). Research examining antisemitism, RWA and the closely related construct of religious fundamentalism is inherently complicated by social desirability bias, such that research participants tend to underreport socially undesirable beliefs (Bergen & Labonté, 2020; Crowne & Marlowe, 1960; Paulhus, 1984). Experimental methods, such as the altered bogus pipeline condition, have been utilized among university students to reduce social desirability and more accurately measure these constructs (Cohen et al., 2009). However, it remains unclear if bogus pipeline (Cohen, 2021; Jones & Sigall, 1971) and altered bogus pipeline conditions successfully reduce social desirability when assessing antisemitism, RWA, and religious fundamentalism. Experimental research is needed to clarify the impact of the bogus pipeline and altered bogus pipeline conditions on outcomes such as antisemitism, RWA, religious fundamentalism and social desirability.

Antisemitism, Right-Wing Authoritarianism, and Religious Fundamentalism

In their 1950 book, authors Adorno, Frenkel-Brunswick, and Sanford coined the concept of the “authoritarian personality.” Although the research proposed by these authors has been updated, the authors remain notable for their identification of the relationship across antisemitism, RWA, and religious fundamentalism. Antisemitism is broadly defined as “prejudice and/or discrimination against Jews, individually or collectively, that can be based against Jews because of their religion, ethnicity, ancestry, or group membership” (Kosmin & Keysar, 2015, p. 1). In addition, RWA is defined as “submission to the perceived established authorities in society” and “the social norms these authorities endorse” (Altemeyer, 1998, pp. 85–86). Finally, religious fundamentalism is defined as “the belief that there is one set of religious teachings that clearly contains the fundamental... truth about humanity...and that those who believe and follow these fundamental teachings have a special relationship with the divine” (Altemeyer & Hunsberger, 1992, p. 118). While Adorno and colleagues (1950) first identified the co-occurrence of antisemitism, RWA, and religious fundamentalism as a personality type, recent research demonstrates that these constructs are closely related (Shepperd et al., 2019).

Although the exact mechanism(s) by which these constructs are related remain unclear (Feldman, 2003), these constructs are worthy of scientific examination given that they often manifest concurrently. Indeed, a literature review of antisemitism revealed associations with both RWA and religious fundamentalism (Kaufman et al., 2020). This finding is unsurprising given that religious fundamentalism and RWA are associated with prejudice (Conway et al., 2018; Rowatt et al., 2009). Given that these

constructs may be susceptible to social desirability bias, there are major concerns regarding their measurement in research settings.

Social Desirability Bias

Social desirability bias inherently complicated research examining prejudice and other beliefs, cognitions, or behaviors that may be considered socially undesirable or “taboo.” Broadly, social desirability bias refers to individuals’ tendency to present or report one’s beliefs, cognitions, or behaviors in a way that is socially acceptable or “culturally sanctioned” (Bergen & Labonté, 2020; Crowne & Marlowe 1960, p. 354; Paulhus, 1984). In research settings, social desirability bias may lead participants to alter their response style to engage in impression management (Bergen et al., 2020; Paulhus, 1984, 2001). The impact of social desirability bias may be particularly high in research studies examining topics generally thought to be socially impermissible (Chung & Moore, 2003). Given public discourse on antisemitism, RWA, and religious fundamentalism, it is highly plausible that some individuals may consider endorsing views associated with these constructs to be socially undesirable. Indeed, this is borne out by research examining antisemitism (Cohen et al., 2009) and religiosity (Jones & Elliot, 2016), which suggests that subjects may under- or overreport endorsement of these constructs to avoid being perceived as antisemitic and/or as under-religious by study staff.

Bogus Pipeline and Altered Bogus Pipeline Conditions

Experimental conditions, including the bogus pipeline condition and altered versions of the bogus pipeline, have been used to mitigate the potential impact of social desirability bias (Jones & Sigall, 1971). The bogus pipeline condition utilizes physiological monitoring equipment to convince participants that their “true” attitudes, opinions, or thoughts will be revealed. The physiological monitoring device is “bogus” and cannot detect honest responding (Jones & Sigall, 1971). Prior research using the bogus pipeline condition has utilized a variety of physiological monitoring devices, including EMGs (Plant et al., 2003), polygraphs (Strang & Peterson, 2016), and finger electrodes (Jones & Elliott, 2016) to convince subjects that hiding their “true” attitudes from experimenters is futile. In studies utilizing the bogus pipeline condition, participants report higher racial prejudice (Borum et al., 2016) and lower religiosity (Jones & Elliott, 2016). Other research examining the bogus pipeline indicates that certain traits or behavior may not be amenable to the bogus pipeline condition, including narcissism (Myers & Zeigler-Hill, 2012), religious coping (Jones & Elliott, 2015), and age of first sexual intercourse (Fisher, 2013). As such, research must explore how the bogus pipeline condition may be a useful experimental condition to reduce social desirability.

Researchers have also utilized altered versions of the bogus pipeline (Cohen, 2012; Cohen et al., 2009) to examine constructs likely impacted by social desirability that are not consistent with the original guidelines set by Jones and Sigall (1971). Specifically,

these studies did not incorporate physiological data/equipment as part of their manipulation, but instead provided participants with a written statement indicating that researchers would be able to detect falsehoods (Cohen, 2012; Cohen et al., 2009). Although these studies did not examine differences in social desirability bias as assessed by a validated measure, participants in altered bogus pipeline conditions endorsed greater antisemitism. As such, altered bogus pipeline conditions may also impact social desirability. However, the altered version of the bogus pipeline as conducted by Cohen (2012) and Cohen and colleagues (2012) has not been used to examine RWA or religious fundamentalism. More importantly, this study condition has not been used to examine social desirability as assessed by a validated measure. Research is needed to examine whether the utilization of the bogus pipeline condition, in accordance with the guidelines set by Jones and Sigall (1971), and the altered bogus pipeline condition are effective methodologies for reducing social desirability and examining related constructs.

Current Study

Introduction

The study goal is to examine the impact of study condition across bogus pipeline (Jones & Sigall, 1971), altered bogus pipeline (Cohen, 2012; Cohen et al., 2009), and control groups on antisemitism, RWA, religious fundamentalism, and social desirability bias in a university sample. Given prior research, we hypothesized that social desirability would differ significantly across experimental group, such that social desirability bias will range from lowest to highest across the bogus pipeline, altered bogus pipeline, and control conditions, respectively. A second goal of this study is to examine report of antisemitism, RWA, and religious fundamentalism across experimental conditions. Despite limited research examining the impact of experimental condition on antisemitism, RWA, and religious fundamentalism (Cohen, 2012; Cohen et al., 2009), we hypothesized that significant differences in antisemitism, religious fundamentalism, and RWA would emerge across the conditions, such that endorsement of these constructs would range from highest to lowest across the bogus pipeline, altered bogus pipeline, and control conditions, respectively. Results of a power analysis using the G*Power Software (Faul et al., 2009) indicated that 82 participants were needed to test the above research questions ($F = 0.25$, Power = .50).

Method

Participants

Undergraduate students ($N = 102$; age range = 18–45, $M = 20.02$, $SD = 4.01$) from a public mid-size university in the Mid-South of the United States participated in the study. Participants had to be age 18 or older to participate in the study. The majority of our sample self-identified as women ($n = 76$, 74.5%), with one fifth ($n = 22$, 21.6%) participants self-identifying as men

and 4 (3.9%) participants self-identifying as transgender. Of our sample, 49% ($n = 50$) almost half self-identified as non-Hispanic White/European American. For more demographic information, including annual household income, spiritual/religious tradition, see Table 1.

Procedures

Following approval from the university's institutional review board, students were recruited and enrolled into this in-person study conducted in a university research lab. Potential participants were told that the study examined personality, cognitions, and prejudice. After signing up for their study visit, participants were randomly assigned to one of three conditions: bogus pipeline condition ($n = 34$), altered bogus pipeline condition ($n = 33$), and control condition ($n = 35$) using a block randomization generator created by Dallal (2008) (Bland, 2002; Fleiss, 1986; McLeod, 1985). All participants provided informed consent and completed study questionnaires on a study computer. Following completion of the study, all participants were asked about their familiarity with the bogus pipeline condition and prior knowledge of the study. In addition, all participants were debriefed and provided with course credit as compensation.

Table 1. Multilevel Models with Perceived Partner Responsiveness and Psychological Safety as Outcomes (Study 1)

Race and Ethnicity	
Non-Hispanic White	49% (50)
African American/Black	26.5% (27)
Asian/Asian American	9.8% (10)
Latinx/Hispanic	3.9% (4)
Multiracial	8.8% (9)
Other	2% (2)
Annual Household Income	
Less than \$10,000	2 (2%)
\$10,001-\$30,000	26.5% (27)
\$30,001-\$60,000	26.5% (27)
\$90,000 and above	29.4% (30)
Political Party	
Democratic Party	59.8% (61)
Republican Party	24.5% (25)
Independent Party	13.7% (14)
Libertarian Party	2% (2)
Religious/Spiritual Tradition	
Christianity	64.7% (66)
None	12.7% (13)
Agnostic	9.8% (10)
Atheist	5.9% (6)
Islam	3.9% (4)
Buddhism	2.9% (3)

Bogus Pipeline Condition. This condition was designed using guidelines set by Jones and Sigall (1971). For these participants, the consent document indicated that the purpose of the study was to examine “prejudice using lie detection software” and “how individuals are purposefully inaccurate about their prejudice towards others.” Study staff reiterated this point to participants by reading the same information from a study protocol script. This language is consistent with the guidelines set by Jones and Sigall (1971) for the bogus pipeline condition to make participants believe that any purposeful inaccuracies will be detected. Participants in the bogus pipeline condition were asked to wear an ear sensor from the emWave2® Portable Training Device (WorldWorks, Unlimited, Santa Rosa, CA), a portable biofeedback device. The emWave2® includes a feature that graphs participants’ heart rate variability (HRV) in real time. Participants’ HRV data was displayed on a second screen while they completed study questionnaires on another computer. Participants were informed that the emWave2® monitors accuracy of responses based on physiological data and that researchers would be aware of all purposefully inaccurate responses. Prior to starting study questionnaires, participants were asked two questions to “calibrate the device” with study staff (of note, this is part of the experimental manipulation to make participants believe that the device detects inaccurate responses, but no calibration actually occurred). As part of the “calibration” procedure, participants were asked to accurately answer the question, “What city are we in?” and to inaccurately answer the question “What state are we in?” while the researcher watched the HRV data on the second computer screen. Following these questions, the study staff member deemed the device “calibrated” and the participant reported various demographics and completed study questionnaires.

Altered Bogus Pipeline Condition. The methodology for this condition was patterned on that of Cohen et al. (2009). For participants in the altered bogus pipeline condition, the consent document indicated that the purpose of the study was to examine “how personality is related to prejudice.” Study staff reiterated this point to participants by reading the same information from a study protocol script. Consistent with the study design of Cohen et al. (2009), after providing consent, participants were asked the following question: “How often do you stop for stranded motorists? (never, rarely, sometimes, usually, always).” After answering this question, participants were told: “This question might appear innocent enough, but, in fact, it is one of many tools psychologists use to detect people who lie to create a positive impression of themselves. With the possible exception of policemen on patrol, NO ONE “usually” or “always” stops for stranded motorists. People who say they do are most likely lying.” Although Cohen et al. (2009) and other researchers who have used this condition (e.g., Walker & Jussim, 2002) describe it as the “bogus pipeline,” we described this condition as the “altered bogus pipeline condition” because it did not include a device or machine (Jones & Sigall, 1971). After answering the above question, participants reported their demographics and completed study questionnaires.

Control Condition. For participants in the control condition, the consent document indicated that the purpose of the study was to examine “prejudice and related attitudes and cognitions.”

Study staff reiterated this point to participants by reading the same information from a study protocol script. After providing consent, participants reported various demographics and completed study questionnaires.

Measures

Demographics. The demographics questionnaire was designed to ascertain background information, including: age, gender, annual household income, spiritual/religious tradition, political party affiliation, race, and ethnicity.

Manipulation Check. Consistent with a manipulation check protocol previously utilized by Jones and Elliot (2016), participants were asked about their familiarity with the bogus pipeline and if they had knowledge of the study prior to participating.

Marlowe-Crowne Social Desirability Scale (MCSDS). The MCSDS (Crowne & Marlowe, 1960) is a 33-item measure of social desirability as defined by one’s need for approval. The MCSDS was designed to assess participants’ tendency to choose responses that would make them look like “good people” rather than providing accurate responses. Questions are posed in a true or false format and total scores ranged from 0 to 33 and higher scores indicate greater social desirability. Examples of questions include: “I have never intensely disliked anyone” and “When I don’t know something I don’t mind at all admitting it.” As demonstrated in the original study, the MCSDS has adequate internal consistency reliability and test-retest reliability with alpha coefficients of .88 and .89, respectively (Crowne & Marlowe, 1960). The MCSDS has demonstrated adequate internal consistency reliability among university samples (Gregus et al., 2014; Ventimiglia & MacDonald, 2012). The reliability in the current study was acceptable ($\alpha = .83$).

Levinson and Sanford Anti-Semitism Scale (LSASS). The LSASS (Levinson & Sanford, 1944) is a 52-item measure of explicit antisemitic prejudice in terms of agreement with antisemitic statements and actions and has been validated in university samples (Askew & Jones-Wiley, 2008; Jones-Wiley et al., 2007). Participants respond to items (e.g., “The trouble with letting Jews into a nice neighborhood is that they gradually give it a typically Jewish atmosphere”) on a Likert scale from 1 (*Strong Disagreement; An absolutely misconception; False*) to 6 (*Strong Agreement; Undeniably true in general*). Scores range from 52–312 and higher scores indicate greater antisemitism. The LSASS has adequate internal consistency reliability with an alpha coefficient of .93 (Askew & Jones-Wiley, 2008; Jones-Wiley et al., 2007). The reliability in the current study was acceptable ($\alpha = .96$).

Right-Wing Authoritarianism Scale (RWAS). The RWAS (Altemeyer, 1998) is a 32-item measure of right-wing authoritarianism. Participants respond to items (e.g., “The ‘old-fashioned ways’ and ‘old-fashioned values’ still show the best way to live”) on a Likert scale from 1 (*Very Strongly Disagree*) to 9 (*Very Strongly Agree*). Fifteen items on the RWAS are reverse-coded so that higher scores indicate greater RWA. Scores range from 30 to 270. The RWAS has adequate internal consistency reliability with an alpha coefficient of .92. The reliability in the current study is adequate ($\alpha = .85$).

Table 2. Correlations, Means and Standard Deviations Across Study Sample

	RWA	RF	AS	SD
RWA	55.51 (27.83)	.72**	.29**	.24**
RF		107.36 (45.37)	.20*	.36*
AS			75.92 (27.59)	.06
SD				14.40 (5.83)

* $p < .05$; ** $p < .01$

Results¹

Preliminary Analyses

In the whole sample, all study variables were significantly correlated, apart from social desirability and antisemitism (p 's $< .05$, see Table 2). In addition, age, political conservatism, and socioeconomic status did not differ significantly across the study conditions (p 's $> .05$).

Results

Results of a one-way MANOVA revealed that social desirability significantly differed across study condition. Social desirability significantly differed between the bogus pipeline ($M = 12.88$, $SD = 5.82$) and the altered bogus pipeline conditions ($M = 16.39$, $SD = 6.02$, $p < .05$). Social desirability did not differ across the control condition ($M = 14.00$, $SD = 5.04$) and the bogus pipeline condition or the altered bogus pipeline condition. In addition, RWA, religious fundamentalism, and antisemitism did not significantly differ across study condition (see Table 3).

Discussion

Given the potential impact of social desirability bias, it is essential to conduct research examining the utility and effect of bogus pipeline conditions on outcomes potentially susceptible to social desirability bias. As such, this study examined the impact of experimental conditions (i.e., bogus pipeline and altered bogus pipeline) on self-report measures of social desirability, RWA, antisemitism, and religious fundamentalism among university students. This study adds to the research literature examining the role of experimental design in the assessment of socially undesirable beliefs and attitudes.

Results revealed significant differences in social desirability bias across study conditions. Individuals in the altered bogus pipeline condition reported significantly higher social desirability bias compared to individuals in the bogus pipeline. Study findings did not indicate significant differences between the bogus pipeline condition and the control condition on social desirability bias.

Table 3. Means, Standard Deviations, and MANOVA Results Across Study Condition

Measure	Control		Bogus Pipeline		Altered Bogus Pipeline		$F(1, 101)$	(A)
	M	SD	M	SD	M	SD		
Social Desirability	14.00	5.04	12.88	5.82	16.39	6.02	3.59*	0.07
Antisemitism	77.83	30.94	75.97	42.10	73.85	27.89	0.18	
Right-Wing Authoritarianism	109.26	49.66	104.79	48.90	108.00	37.40	0.12	
Religious Fundamentalism	54.17	29.99	53.48	28.50	58.94	23.60	0.39	

Note. * $p < .05$.

Results were inconsistent with study hypotheses given that we hypothesized that social desirability would range from lowest to highest across the bogus pipeline, altered bogus pipeline, and control conditions, respectively. These results are particularly surprising given the large body of work examining the efficacy of the bogus pipeline on report of constructs closely associated with social desirability (Burum et al., 2016; Jones & Elliot, 2016; Jones & Sigall, 1971; Plant et al., 2003). Results also diverge from other research indicating that participants in an altered bogus pipeline condition would present with significantly less social desirability bias as compared to individuals in a control condition (Cohen, 2012; Cohen et al., 2009; Walker & Jussim, 2002). Study findings were also inconsistent with prior research indicating that participants in a bogus pipeline condition (Jones & Sigall, 1971) report less social desirability as compared to individuals in a control condition. Finally, findings further diverge from prior research given that participants in the altered bogus pipeline condition in our study reported more social desirability than did participants in the control group (Cohen, 2012; Cohen et al., 2009; Walker & Jussim, 2002). However, this difference was non-significant. Study findings are consistent with research indicating lack of differences in potentially socially undesirable constructs across bogus pipeline and control conditions (Fisher, 2013; Jones & Elliott, 2015; Myers & Zeigler-Hill, 2012).

The discrepancy in our findings regarding the impact of experimental condition on social desirability bias could be due to several factors. The first being, that our participants, as university students, may have had familiarity with the concept of social desirability bias and this potential familiarity impacted findings. The second being, that "modern" university students in the twenty-first century were not as convinced or impacted by either the bogus pipeline condition or altered bogus pipeline as were participants in the 1970s (Jones & Sigall, 1971). Perhaps these students are more familiar with the bogus pipeline and/or are more suspicious of research deception, especially research deception that involves "personality tests." In this case, participants may have felt comfortable expressing social desirability knowing that it would not be detected by the altered bogus condition. This supposition is supported by prior research indicating that the bogus pipeline is most effective when participants are aware of the outputs (i.e., can view the data indicating "false" responses). Perhaps participants in our study were not convinced by the altered bogus pipeline condition and, consequently, reported greater social desirability. Other research indicates that the effects

¹ The manipulation check questions administered at the end of the survey revealed that none of the participants were familiar with the bogus pipeline condition or had spoken with other students about the study prior to participation.

of the altered bogus pipeline condition may “wear off” over the course of the study (Beattie, 2016). As such, the effect of the altered bogus pipeline on responding may have worn off by the time participants answered our measure assessing social desirability bias (Beattie, 2016) whereas the effects of the bogus pipeline condition were maintained. Finally, time pressure has been shown to increase socially desirable responding in experimental settings (Protzko et al., 2019). As such, participants in the altered bogus pipeline condition may have perceived some type of time pressure during the study, which led to significantly more socially desirable responses. As such, future research is needed to corroborate and replicate study findings.

Findings did not reveal significant differences in RWA, religious fundamentalism, and antisemitism across experimental conditions. These results differed from hypotheses given that we hypothesized that antisemitism, RWA, and religious fundamentalism would range from highest to lowest across the bogus pipeline condition, altered bogus pipeline, and control conditions, respectively. This hypothesis was corroborated by prior research indicating that social desirability bias impacts report of socially undesirable cognitions and attitudes (Borum et al., 2016; Jones & Elliot, 2016; Jones & Sigall, 1971; Plant et al., 2003). In addition, study findings were also surprising given prior research indicating that the altered bogus pipeline is associated with report of higher antisemitism and other socially undesirable attitudes (Cohen, 2012; Cohen et al., 2009; Walker & Jussim, 2002).

Our results are in line with recent theoretical work proposing that antisemitism is not impacted by social desirability bias (Cohen, 2021). Although Cohen (2021) did not extend this argument to religious fundamentalism and RWA, future research should examine if and why these concepts may not be amenable to social desirability bias. One such reason as to why our analyses did not reveal a significant effect is that our study diverged from prior research examining antisemitism and the bogus pipeline in that we utilized a validated, rather than unvalidated, measure of antisemitism (Cohen, 2012). In addition, we may have encountered a floor effect given the relatively low endorsement of antisemitism as compared to another university sample using the same measure (Cohen et al., 2009).

The lack of significant differences in RWA and religious fundamentalism across conditions is difficult to place within the literature given the lack of research in this area. The lack of significant differences could be due to the overall low level of RWA and religious fundamentalism in our sample. Specifically, the mean score of RWA in our sample was 107.36 ($SD = 45.37$), which is in the “middle” (Altemeyer, 2006). In addition, the mean score of religious fundamentalism in our samples was 55.51 ($SD = 27.38$), which is significantly lower than adults in the US (Altemeyer, 2006). Another reason for the lack of significant results could be that our sample included an overrepresenten

Limitations

Despite many study strengths and contributions to the research literature, it is worth mentioning several limitations. First, while the

study’s sample size was large enough to detect statistical differences as revealed by a power analysis, data collection was interrupted by the COVID-19 pandemic. As a result, the sample was not as large as originally planned and we were not able to balance our samples in areas where we had over or underrepresentation (e.g., women, racial/ethnic groups). Second, our study’s measure of antisemitism was validated in college samples over a decade ago (Askew & Jones-Wiley, 2008; Jones-Wiley et al., 2008) but this measure was originally created prior to the Holocaust and may reflect an outdated conceptualization of antisemitism. Future researchers should create more contemporary measures of antisemitism or conducting studies to ensure the validity of this measure of antisemitism (i.e., Generalized Antisemitism scale, Allington et al., 2021). Third, our almost 60% of our sample self-identified as Democrats. Because political conservatism has been associated with RWA and religious fundamentalism, the overrepresentation of Democrats in our sample may have impacted results. As such, future research should include more politically heterogeneous samples. Fourth, as discussed above, our sample reported an overall low level of antisemitism, even as compared to another university sample (Cohen et al., 2009). As such, our findings may have been impacted by a floor effect. Future research should include participants with a greater range of antisemitic attitudes. Finally, our sample was conducted in the Mid-South. Thus, our results may have been impacted by the regional factors and culture of the Mid-South, a more nationally representative and balanced sample with respect to gender and race/ethnicity is warranted in future studies.

Given our findings regarding the impact of the bogus and altered bogus pipelines, future research should examine forms of these conditions with different methods, including other forms of “collecting” physiological data. Such work may clarify current study findings and identify avenues for consistently and effectively reducing social desirability in experimental research settings.

Conclusion

This study is novel in that it examines antisemitism, RWA, religious fundamentalism, and social desirability across bogus pipeline, altered bogus pipeline, and control conditions among university students. Findings revealed that social desirability significantly differed across experimental condition, such that social desirability was significantly lower in the bogus pipeline condition than the altered bogus pipeline condition. Our findings indicated antisemitism, RWA, and religious fundamentalism did not differ significantly across experimental condition. Study findings underscore the importance of considering social desirability bias in experimental settings and suggest potential limitations to the efficacy of the bogus and altered bogus pipeline conditions. Additional research examining social desirability, RWA, religious fundamentalism, and antisemitism is needed to better understand the impact of experimental condition on the reporting of these constructs as well as opportunities to intervene upon these constructs in research settings.

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