

Firearms, brass knuckles... and Instagram: Intended and unintended influence of social media advertising

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Abstract

Understanding the influence of social media advertising is critical to brands today. This study explores how Instagram advertising from the Transportation Security Administration (TSA), largely featuring confiscated weapons, influences attitudes towards the brand and, unintentionally, towards gun control. A between-groups online experiment found that brand attitudes were not influenced, but light crime show viewers and video game players exposed to TSA's Instagram content showed higher support for gun control than heavy violent crime show viewers and video game players. This research provides practical insight into how a government agency brand communicates with the public subject to its services. It also has theoretical implications, extending priming and desensitisation literature in exploring the relationship between violent social media images, prior exposure to violent media and gun control attitudes and, ultimately, suggesting that brand social media content can unintentionally influence attitudes towards social issues.

Keywords

social media, Instagram, branding, social issues, gun control, priming, desensitisation

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INTRODUCTION

Social media advertising, both paid and organic (unpaid), was estimated to be used by over 90 per cent of companies with 100 employees or more in 2019.¹ It is used not just by for-profit, consumer brands, but also by organisations such as government agencies, contributing to a desirable culture of transparency and openness, enabling more authentic interactions and even changing perceptions that government communication is removed, distanced or even propagandistic.^{2,3} One government agency that has earned significant attention for its social media advertising is the Transportation Security Administration (TSA), whose Instagram account is one of the most popular government agency accounts in the United States.

The stories brands such as the TSA tell about themselves through social media advertising can be both informative and influential. Indeed, 84 per cent of social media users use social media to at least occasionally get news about brands they are interested in, and it is where they most often see and hear things that lead them to fall in or out of love with a brand.⁴ This suggests that social media can influence attitudes towards a brand in ways both intended and unintended. Understanding the influence of social media advertising is critical for brands today.

The nature of social media advertising, which often is not as overtly persuasive or sales oriented as traditional advertising, makes it particularly important to study in the current media environment. Indeed, social media users are more likely to accept social media advertising information if it looks less like traditional advertising⁵; they found none of the paid advertising formats on Facebook appealed to them.⁶ With traditional interruption-based advertising predicted to decline in the next decade and audiences

increasingly turning to ad blockers, advertisers need to earn consumers' attention by providing entertainment, social value, utility, service and experiences.^{7,8} So, the unpaid, organic, brand-distributed form of social media advertising may provide unique opportunities to influence.

Many organisations, such as the TSA, seek to earn media and audience attention by creating social media advertising meant to entertain, startle or weigh in on a controversial issue. The TSA posts graphic content primarily featuring images of 'firearms, brass knuckles and an assortment of medieval weapons'⁹ confiscated from carry-on luggage, meant to shock audiences and help them understand what the agency does.¹⁰ Indeed, such content has the potential to influence attitudes not only towards the brand but also towards the social issues themselves.¹¹⁻¹³ As brands work to attract attention through social media advertising, the content they create may have unintended influence on social issues as well. While research has examined brands that intentionally address social issues in their advertising, few have examined potentially unintended influence.

This paper seeks to fill that gap. The purpose of this study is to build on the literature about how social media influences attitudes by investigating social media advertising from a government agency — a taxpayer-supported, non-sales-oriented public service — and its intended influence on brand attitudes and unintended influence on attitudes towards a social issue. Echoing calls for advertising scholars to shift the focus from Facebook to Instagram,¹⁴ this study focuses on TSA's Instagram account (Instagram being the second-largest social network in the United States now) and investigates the possible influence of organic Instagram advertising from the TSA on attitudes towards the brand and towards the issue of

gun control. We expect that TSA's graphic Instagram content can act as a prime and influence gun control support among those who have not been desensitised to violent media.

LITERATURE REVIEW

Social media advertising enhances attitude towards the brand

The old communication model of one-way, neatly packaged messages being 'pushed' out has been replaced by a new one in which interactivity, authenticity and transparency are paramount.¹⁵ Embodying all these attributes, social media advertising encompasses 'all forms of advertising — whether explicit (e.g., banner advertising and commercial videos) or implicit (e.g., fan pages or firm-related "tweets") — that are delivered' on social media.¹⁶ It is worth noting that this definition does not restrict social media advertising to paid messages. Explicit social media advertising involves brands paying to have their content targeted to people with certain demographics, psychographics, interests or behaviours, while implicit social media advertising involves brands sharing content directly with those that follow them, through their owned, brand-controlled social media channels. Also referred to as organic (unpaid) social media content, owned social media has been found to increase brand awareness and customer satisfaction.¹⁷ Recently, scholars have even conceptualised social media advertising as any 'message from a product, brand, company or organization'.¹⁸ These inclusive definitions recognise that advertising on social media can be more subtle and take a variety of forms.^{19–21}

Social media advertising can drive consumer engagement, including attitude towards the brand. Gavilanes and colleagues²² propose a four-level model

— neutral consumption, positive filtering, cognitive and affective processing and brand advocacy — for digital consumer engagement on social media, in which positive filtering corresponds with liking or a positive attitude towards the content or the brand. Across a variety of content categories, they find current product displays, sales and infotainment content to increase attitudes towards the brand. In another study, de Veries and associates²³ find that vivid and interactive social media posts enhance attitude towards the brand.

TSA's Instagram advertising

The TSA, part of the U.S. Department of Homeland Security, is a federal agency that oversees security for passenger and freight transportation in the United States. It is a prime example of a brand using unusually vivid Instagram posts to improve attitudes towards it. Instagram has become extremely popular: in 2018, it was used by 31.8 per cent of all adults (18+) in the United States; 48.2 per cent of them are between 18 and 34.²⁴ Average engagement rates are significantly higher on Instagram than on Facebook or Twitter.²⁵ Advertising on Instagram is also experienced as more entertaining compared with that on other social media platforms.²⁶ This may contribute to why brands that emphasise organic (unpaid) social media advertising are focusing attention on Instagram more so than Facebook.²⁷

The TSA has accounts on Twitter, YouTube and Facebook as well, but its Instagram account has earned the greatest recognition. While government agencies may not typically be considered savvy with social media, the TSA's Instagram account won three Webby Awards from the International Academy of Digital Arts and Sciences in 2018 for Social Media/Marketing in the categories of Corporate

Communications, People's Choice, and Weird. It also ranked #4 on the list of *Rolling Stone's* 100 best Instagram accounts in 2016, ahead of Beyoncé's account — one of only four accounts that belonged to organisations or companies.

The TSA's Instagram account was launched in June 2013 and, as of January 2020, had reached over 1 million followers with 1,670 posts. Comparing this to popular consumer-oriented business brands on Instagram, Amazon (#3 on Interbrand's 2019 Best Global Brands) has 2.3 million followers and 1,950 posts, Pepsi (#24 on Interbrand's 2019 Best Global Brands) has 1.6 million followers and 456 posts, and M&Ms (the top-ranked brand on YouGov) has 1.1 million followers and 911 posts.

The TSA Instagram account aims to educate the public and inform them of what the agency does.²⁸ It does this largely by featuring images of 'firearms, brass knuckles and an assortment of medieval weapons'²⁹ that have been confiscated from carry-on luggage, along with occasional pictures of drug-sniffing dogs, and travel tips. This content strategy has resulted in a significant amount of earned media, with publishers such as *Wired*, *Esquire*, *NBC News*, *Business Insider*, *Yahoo*, *Adweek*, *Huffington Post*, *TMZ*, *Refinery 29* and *Visual News* all writing about the TSA's 'terrifying and totally awesome' account.³⁰ The account is meant to humanise the TSA and change negative attitudes towards the brand by visually documenting the unusual items it has to confiscate. As the creator and manager of the account, Bob Burns said,

I think that a lot of people are hesitant to go into social media at a corporate level, because they're afraid of the criticisms that comes with it. If the TSA can do it, anybody can do it. We're actually changing

the conversation from 'I had to wait in this line, TSA is so horrible,' to 'Did you see what TSA is finding? Now I understand why I have to wait in these lines. There's all this crazy stuff.'³¹

Pictures have been shown to lead to stronger attitude formation than text,^{32–34} have greater influence than text on brand and ad attitudes³⁵ and affect post-message attitudes towards and perceptions of products.^{36,37} Using Instagram, which requires a photo or video, to influence attitudes makes sense. Featuring predominantly firearms on its Instagram account, TSA anticipates that this content strategy would improve attitude towards the agency.

In light of this literature, this study first examines the influence of exposure to TSA's Instagram account on attitudes towards the TSA brand, which is the publicly stated, intended goal of the TSA's social media advertising. The literature reviewed thus far suggests the following:

H1: Those who are exposed to TSA's Instagram content will show more positive attitudes toward the TSA.

This study then examines the presumably unintended influence of exposure to TSA's Instagram account on attitudes towards gun control and the potentially moderating role of crime shows or violent video games in desensitising viewers or players to violence.

Unintended influence of social media advertising on social issues

It has long been argued that advertising can have unintended consequences,³⁸ such as boomerang effects where anti-smoking campaigns antagonise smokers³⁹ or spillover effects where social media chatter about a brand in crisis hurts its rival brands.⁴⁰

In today's polarising political environment, organisations and brands are increasingly becoming embroiled in social issue debates. In fact, most advertising messages are mixed with serving traditional economic objectives and involving social topics⁴¹; hence, when studying social media advertising, it is important to look beyond such traditional advertising outcomes as attitudes towards the brand. It is possible that social media advertising can serendipitously sway public attitudes on related social issues.

As visuals are increasingly integrated into social media advertising, it is worth noting that images have the potential to affect attitudes towards social issues. Exposure to an image of a gay male couple kissing, for instance, reduced support for legal recognition of gay marriage.⁴² People who see photos showing a soldier with a large automatic rifle indicate less support for military intervention in Afghanistan compared with those who see a soldier without the rifle.⁴³ It appears that merely seeing weapons can alter attitude towards a controversial issue in this case.

Most of the graphic pictures in the TSA's Instagram account are of confiscated weapons, particularly guns, taken by TSA agents. As Burns, manager of the account, describes,

The shock value is 'Oh my God, these people are trying to bring these things on planes and I'm sitting next to these people. It's kind of the perfect storm of 'This is pretty cool, I'm going to follow this.'⁴⁴

We hypothesise that the 'shock value' of seeing these weapons may unintentionally influence attitudes of some viewers towards gun control. We expect viewers' prior exposure to violent media content to play a moderating role here. More specifically, we propose that those who are

exposed to TSA's Instagram content will show higher support for gun control, but this effect only appears among viewers with less exposure to violent media content, such as crime shows on television or violent video games. In the sections that follow, we primarily draw upon priming, associative network and desensitisation theories to explicate this conditional relationship.

PRIMING

Many social processes, thoughts and behaviours can take place in a way that seems automatic in response to a particular trigger in the environment.⁴⁵ This 'triggering' is known as priming, or the activation of knowledge constructs by exposure to a stimulus.⁴⁶ This activation may be influenced by both the accessibility and applicability of that construct to the judgment or evaluation at hand.⁴⁷ An effective prime leads to an almost automatic retrieval of easy-to-find, accessible knowledge or affect, which is used for the judgment at hand if that knowledge or affect is deemed as applicable.⁴⁸ Through this process, primes can essentially alter the criteria used to make judgments or evaluations. It follows that advertising content consistently showing one type of content may prime certain thoughts in the viewer's mind, which, according to the associative network model, may affect attitudes towards a social issue closely related to the activated construct.⁴⁹

Priming may not work the same way on everyone. Participant characteristics and differences in goals or motivations may influence the effectiveness of a prime.⁵⁰ For example, mock advertisements used to prime healthy eating increased fruit preference only in more educated and hungry individuals, and not in less educated participants or those who were not hungry.

The presence of the goal or motivation influenced the applicability of the prime. For our study, we argue that responses to primes can indeed be influenced by the amount of prior exposure to violent media content, as heavy consumers may be desensitised to new violence-related stimuli.

Desensitisation

Desensitisation has been defined as the process where exposure to violent or gory content in the media makes people 'numb to the pain and suffering of others'.⁵¹ In media violence research, desensitisation procedures involve exposure to initially fearful stimuli; desensitisation effect is manifested in extinction of fear or anxiety reactions to violence, and desensitisation outcomes can be both cognitive and affective, such as decreased perception of injury severity, decreased attention to violent events, decreased sympathy for violent victims, increased belief that violence is normative and decreased negative attitudes towards violence.^{52,53}

Repeated exposure to media and video game violence may result in desensitisation to real-world violence.⁵⁴⁻⁵⁹ Violent content induced desensitisation has a multitude of consequences.

For example, heavy violent media content consumers show less reactivity to violence-related stimuli.⁶⁰ Heavy viewers of crime shows on television and heavy video game players thus may be less responsive to new images of weapons on TSA's Instagram account whereas light viewers/players are more likely going to be affected by such images.

Another consequence of desensitisation is viewing new violence-related stimuli as normal and perceiving violent acts as less severe.⁶¹ Indeed, prior exposure to violent media content will activate aggressive scripts in the viewers' mind

and these scripts 'will make aggressive actions seem more appropriate than they would in the absence of the prime'.⁶² As a result, heavy prior violent content consumers may normalise firearm images on Instagram's social media and be less likely to change their attitudes towards gun control. On the other hand, light consumers are more likely going to shift their attitude in response to seeing these images.

Furthermore, desensitisation results in stronger pro-violence attitudes, less empathy for real-life victims and reduced probability of helping victims.⁶³⁻⁶⁹ Bushman and Anderson concluded that, through desensitisation, people exposed to media violence 'become comfortably numb to the pain and suffering of others and are consequently less helpful'.⁷⁰ Light crime show viewers and violent video game players may be more likely to consider the consequences of firearms featured on TSA's Instagram account brought onto planes on the safety of themselves and other travellers, altering their attitudes towards gun control.

Light crime show viewers have been found to be more supportive of gun control than heavy viewers⁷¹; further, those who spend less time playing violent video games or first-person shooter games and those who do not use gun controllers are more likely to support gun control policies.⁷²

The theories reviewed so far have suggested that heavy prior violent media content consumers may be desensitised to violent content so that new images of weapons on TSA's Instagram account will not influence their attitudes towards gun control. On the other hand, light prior violent content consumers are more likely to be responsive to new images of weapons on TSA's Instagram account and become more supportive of gun control. Consistent with our consideration of the unintended effects

of social media advertising, we argue that TSA's Instagram account, predominantly featuring weapons, will have unintended effects in altering some of its viewers' attitudes towards gun control. More specifically, we hypothesise the following:

H2: Light crime show viewers who are exposed to TSA's Instagram content will show higher support for gun control than heavy violent crime show viewers.

H3: Light violent video game players who are exposed to TSA's Instagram content will show higher support for gun control than heavy violent video game players.

METHOD

Sample and procedure

An online experiment with a between-groups design was fielded on Amazon's mTurk on 8 February 2016 and closed on the same day once the target sample size of 200 was reached. Each respondent was randomly assigned to one of two experimental conditions. The TSA's Instagram account was chosen as one condition because of the media attention it received for its 'terrifying and totally awesome' account, primarily featuring bizarre confiscated weapons.⁷³ A random sample of images was coded ($n = 50$) by the authors and, indeed, the majority (nearly 60 per cent) depicted firearms, ammunition and other types of weapons prohibited from carry-on luggage (Krippendorff's $\alpha = 0.81$). Reynolds Kitchen's Instagram account was chosen as a comparison group because it was a non-governmental account that featured non-violent, visually rich images of food and had a niche group of followers. Food is one of the most common categories of content on Instagram, particularly when focusing on accounts that primarily include images of

things rather than people, places or activities, and creating an experience as close to Instagram as possible was important.⁷⁴

Both groups were initially given a series of pretest questions about social media use and specific social media accounts followed to determine whether or not they were familiar with social media or with any of the accounts studied in this experiment. Then each group viewed ten days of the actual Instagram feeds from the two different accounts, presented in a format as similar to that of Instagram as possible. Those in the experimental condition scrolled through the 30 posts, with pictures and comments, posted by the TSA on their Instagram account (<https://www.instagram.com/tsa>) from 6 November to 16 December 2015. Those in the control condition scrolled through the 31 posts, with pictures and comments, posted by Reynolds Kitchen on their Instagram account (<https://www.instagram.com/reynoldskitchens>) from 5 November to 15 December 2015 (see Appendix I for sample images). After viewing either Instagram account, respondents completed post-test questions before each was compensated with US\$1 for participating in the study.

Respondents who spent fewer than 3 minutes completing the study were excluded from analysis. One respondent who was assigned to the Reynolds Kitchen condition was already following its Instagram account and, therefore, this case was dropped as well. Ultimately, 177 responses were analysed ($n_{\text{TSA}} = 87$, $n_{\text{Reynolds}} = 90$).

The majority of the respondents were male (58.1 per cent), white (84.2 per cent), between 25 and 34 years old (47.1 per cent), with a bachelor's degree (30.8 per cent) and with a household income of less than US\$30K per year (37.1 per cent). See Table 1 for demographic information on the respondents.

Table 1 Respondents

Gender	Male	58.1%
	Female	41.9%
Age	19–24	11.6%
	25–34	47.1%
	35–54	34.2%
	55+	7.1%
HHI	Under \$30K	37.1%
	\$30K–\$50K	22.1%
	\$50K–\$75K	17.4%
	\$75–\$100K	9.4%
	\$100K+	12.8%
	Doesn't know	1.2%
Education	Didn't complete high school	1.7%
	Completed high school or GDE	11.6%
	Some college	27.4%
	Associate's degree	13.4%
	Bachelor's degree	30.8%
	Some post grad	3.5%
	Post grad or professional degree	11.6%
Race	White	84.2%
	Black or African American	3.5%
	Asian or Pacific Islander	8.8%
	Mixed race	1.2%
	Native American	0.6%
	Other	1.8%
Gun Ownership	Yes	21.5%
	No	78.5%
Party Identification	Strong Democrat	17.9%
	Weak Democrat	22.8%
	Leaning Democrat	20.4%
	Independent	8.6%
	Leaning Republican	9.9%
	Weak Republican	10.5%
	Strong Republican	9.9%

Measures

Dependent variable

Attitude Towards the TSA. Respondents were asked to use five semantic differential scales and rate what they thought of the TSA on a 7-point scale, with a higher number indicating a more positive attitude: unappealing:appealing, bad:good,

unpleasant:pleasant, unfavorable:favorable, unlikeable:likeable. These items were averaged to create an attitude towards the TSAS index ($\alpha = 0.97, M = 3.78, SD = 1.68$).

Gun Control Support. Respondents were asked to indicate the extent to which they agreed with the following statements on a five-point Likert scale: 'The current gun laws in the United States are too lenient and need to be made stronger', 'I favor a ban on assault style weapons', 'I favor creating a federal government database to track all gun sales', 'It is important to protect the right of Americans to own guns' (reverse coded) and 'It is important to control gun ownership'. Higher scores meant greater support for gun control. These items were averaged to create the index of support for gun control ($\alpha = 0.90, M = 3.37, SD = 1.17$).

Independent variables

Exposure to TSA's Instagram content. The TSA Instagram condition was coded as 1 while the Reynolds Kitchen Instagram condition was coded as 0.

Crime show viewing. Respondents were asked to indicate on a seven-point scale from 'Never' to 'Very Often' how often they watched television programmes that dealt with crime or criminal justice issues, such as *CSI*, *Law and Order* or *Bones* ($M = 3.98, SD = 2.02$).

Violent video game playing. Respondents were asked to indicate on a seven-point scale from 'Never' to 'Very Often' how often they played these types of video games: fighting, action or shooting ($M = 3.89, SD = 2.25$).

Control variables

Respondents answered questions in the post-test survey about gun ownership and party identification. Both of these variables were controlled for, since the typical gun owner is Republican,^{75,76} and gun

ownership is a strong predictor of attitudes towards gun control.^{77,78} Gun owners are less likely to support gun control than non-gun owners; Republicans are less likely to support gun control than Democrats. While women have been shown to be more likely than men to support gun control, controlling for gender did not make a difference in these results.⁷⁹

Gun ownership. Respondents were asked to indicate whether they were gun owners. Positive responses were coded as 1 while negative answers were coded as 0 ($M = 0.22, SD = 0.41$).

Party identification. Respondents were first asked whether they considered themselves Republicans, Democrats or Independents in politics today; they were also given ‘other party’ as an option. Those who answered Republicans (Democrats) were further asked whether they considered themselves to be strong or weak Republicans (Democrats). Independents and those who identified with another party were asked whether they leaned more to the Republican Party or more to the Democratic Party. On the basis of these questions, a seven-point party identification variable was created where 1 indicated Strong Democrats, 7 Strong Republicans and 4 True Independents ($M = 3.41, SD = 1.95$).

The Pearson product-moment correlation matrix of gun ownership, party identification, crime show viewing and video game playing is reported in Table 2.

RESULTS

A series of hierarchical ordinary least squares (OLS) regressions were run to test the hypotheses.

Attitude towards the TSA

H1 was not supported. Results show that seeing TSA’s Instagram content did not improve attitudes towards the brand compared with those exposed to Reynolds Kitchens’ Instagram content ($B = 0.15, SE = 0.27, n.s.$).

Crime show viewing

H2 was supported. Model III in Table 3 indeed shows a statistically significant interaction between exposure to TSA’s Instagram content and crime show viewing ($B = -0.16, SE = 0.07, p < 0.05$). Compared with Model II, there was also a statistically significant increase in R^2 (R^2 change = 0.02, $p < 0.05$).

To further probe the interaction, the Johnson–Neyman technique was used, which identifies the regions of significance (at the α level of 0.05 for this project) along the crime show viewing variable of the effect of exposure to TSA’s Instagram content on support for gun control. The procedure was conducted in PROCESS 2.16.3.⁸⁰

The results indicate that the moderator value defining the Johnson–Neyman significance region is 3.48, suggesting that among those with crime show viewing

Table 2 Pearson product-moment correlation matrix of independent variables

	<i>Gun Ownership</i>	<i>Party ID (Republicans)</i>	<i>Crime Show</i>	<i>Violent Video Games</i>
Gun ownership	1			
Party ID (Republicans)	0.304*	1		
Crime show	-0.085	0.119	1	
Violent video games	-0.024	0.002	0.213**	1

Note: * $p < 0.001$; ** $p < 0.01$; *** $p < 0.05$.

Table 3 The effect of exposure to TSA's Instagram content on support for gun control is moderated by crime show viewing

	<i>Model I</i>		<i>Model II</i>		<i>Model III</i>	
	<i>B (SE)</i>	β	<i>B (SE)</i>	β	<i>B (SE)</i>	β
Gun ownership	-0.916* (0.186)	-0.332	-0.968* (0.187)	-0.351	-0.970* (0.185)	-0.352
Party ID	-0.224* (0.038)	-0.393	-0.217* (0.039)	-0.380	-0.213* (0.038)	-0.373
TSA Instagram			0.199 (0.144)	0.090	0.857** (0.320)	0.386
Crime show			-0.036 (0.036)	-0.065	0.048 (0.051)	0.086
TSA Instagram*Crime show					-0.163*** (0.071)	-0.346
Constant	4.378* (0.144)		4.409* (0.213)		4.037* (0.265)	
R ² change	0.344*		0.013		0.021***	
N	162		162		162	

Note. Entries are coefficients from hierarchical OLS regression analysis.
* $p < 0.001$; ** $p < 0.01$; *** $p < 0.05$.

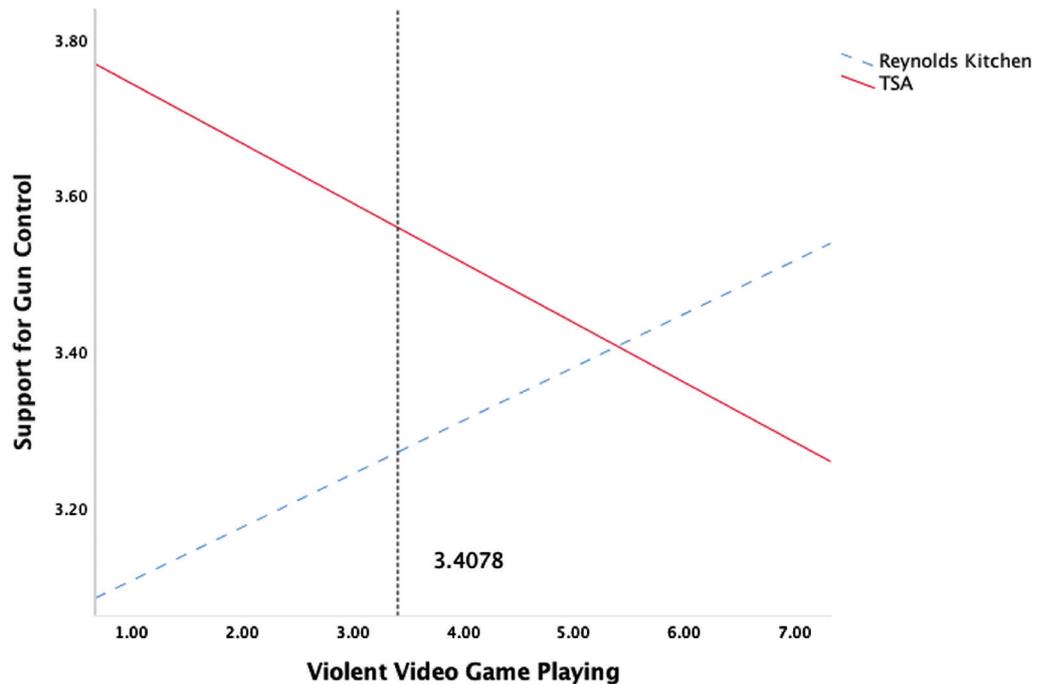


Figure 1 The effect of exposure to TSA's Instagram content on support for gun control is moderated by crime show viewing.

scores below 3.48 ($M = 3.98$, $Md = 4.00$, $SD = 2.02$, $Min = 1$, $Max = 7$), those who were exposed to the TSA's Instagram showed more support for gun control than

those who were exposed to Reynolds Kitchen's Instagram, lending support to H2. The interaction pattern is plotted in Figure 1.

Violent video game playing

H3 was supported. Similar to the crime show viewing findings, Model III in Table 4 indeed shows a statistically significant interaction between exposure to TSA’s Instagram content and violent video game playing ($B = -0.15, SE = 0.06, p < 0.05$). Compared with Model II, there was also a statistically significant increase in R^2 (R^2 change = 0.02, $p < 0.05$).

To further probe the interaction, the Johnson–Neyman technique was used again. The results indicate that the moderator value defining the Johnson–Neyman significance region is 3.41, suggesting that among those with violent video game playing scores below 3.41 ($M = 3.89, Md = 4.00, SD = 2.25, Min = 1, Max = 7$), those who were exposed to the TSA’s Instagram showed more support for gun control than those who were exposed to Reynolds Kitchen’s Instagram, confirming H3. The interaction pattern is plotted in Figure 2.

DISCUSSION

This paper builds on the literature about how social media influences attitudes by

investigating how the Instagram advertising of a brand may influence attitudes towards that brand and, unintentionally, towards a divisive social issue. The results of this online experiment suggest that the TSA’s Instagram content, the majority of which features weapons confiscated from carry-on bags, does not achieve the TSA’s intended goal of influencing attitudes towards the brand; however, the Instagram content did indeed influence attitudes towards gun control, when prior media exposure is considered. Light users of violent media exposed to the TSA’s Instagram account were more supportive of gun control policies than those who were exposed to a comparison account, while the effect did not hold among heavy users of violent media — those who frequently watch crime shows or play violent video games.

The finding that the current TSA Instagram feed does not improve attitudes towards the TSA brand may be due a variety of factors. For instance, it could be that the content strategy (showing predominantly weapon images) does not work for the specific objective (improving brand attitude). As Gavilanes and her colleagues⁸¹

Table 4 The effect of exposure to TSA’s Instagram content on support for gun control is moderated by violent video game playing

	Model I		Model II		Model III	
	B (SE)	β	B (SE)	β	B (SE)	β
Gun ownership	-0.916* (0.186)	-0.332	-0.949* (0.187)	-0.345	-0.940* (0.184)	-0.341
Party ID	-0.224* (0.038)	-0.393	-0.222* (0.038)	-0.389	-0.216* (0.038)	-0.378
TSA Instagram			0.216 (0.144)	0.097	0.781** (0.284)	0.352
Violent video games			-0.003 (0.032)	-0.006	0.068 (0.044)	0.138
TSA Instagram*** Violent video games					-0.145*** (0.063)	-0.316
Constant	4.378*(0.144)		4.284* (0.207)		3.964* (0.247)	
R ² change	0.344*		0.010		0.021***	
n	162		162		162	

Note. Entries are coefficients from hierarchical OLS regression analysis.
* $p < 0.001$; ** $p < 0.01$; *** $p < 0.05$.

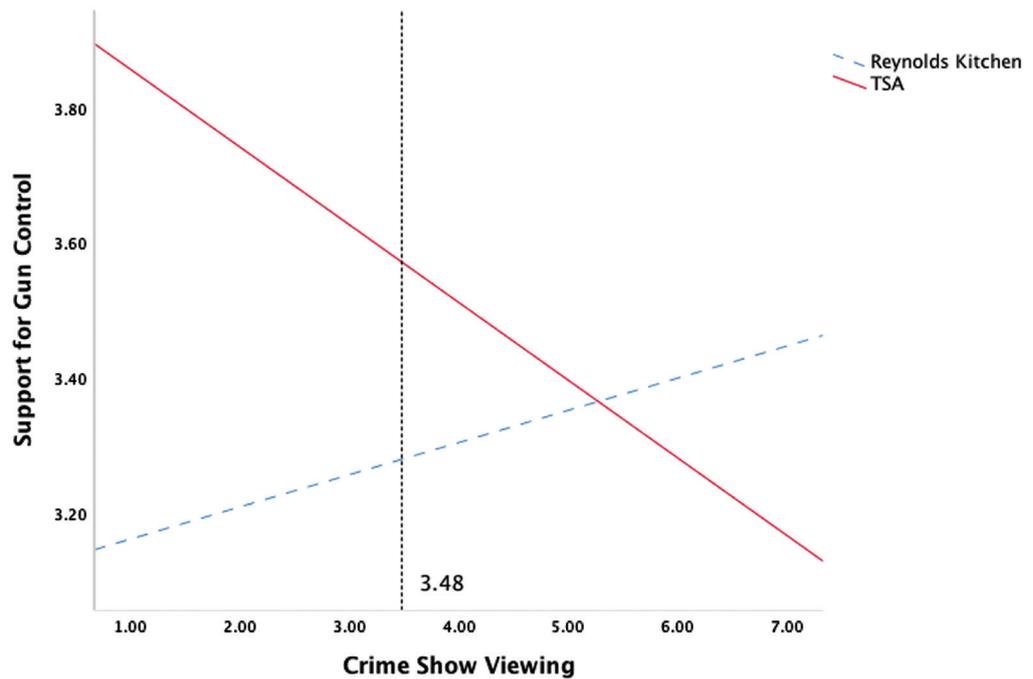


Figure 2 The effect of exposure to TSA’s Instagram content on support for gun control is moderated by violent video game playing.

show, only current product display, sales and infotainment posts on Facebook led to a positive attitude towards brands; other content categories, such as customer feedback, did not affect attitudes.

The influence of TSA Instagram content on light viewers of violent media can be explained through the lenses of priming and desensitisation. Prior media exposure can play a role in how primes influence thoughts and behaviours. Prolonged violent media exposure has been shown to be linked with desensitisation, and that degree of desensitisation might alter future responses to violent image exposure.

Images associated with violence, such as the weapons that make up most of the TSA Instagram content, typically elicit physiological arousal and negative affect. This negative affect may have been primed by the TSA images among light viewers of violent media, those who were not desensitised. As the affect-as-information

theory suggests, the affective state that an individual is in has diagnostic value that can influence subsequent judgment decisions.^{82,83} When faced with a judgment task of evaluating gun control support, light viewers of violent media may have relied upon these negative feelings about violent images and weapons and applied them to this judgment, indicating support for gun control.

Heavy viewers of violent media, on the other hand, may be desensitised to violent images and demonstrate reduced reactivity to new weapons stimuli, reduced sensitivity to real-world violence (normalisation of weapons) and lower levels of empathy for potential violence victims. This reduced empathy and helping behaviour could keep them from considering the potential harm to people on an airplane with weapons.

Notably, one might expect, on the basis of prior research about exposure to

violent media, that the weapons-focused TSA content could influence ‘all’ participants in ways typical of violent media exposure, resulting in reduced empathy and reduced helping behaviour, among others, and then reducing the likelihood of supporting gun control; however, this was not the case. Brief exposure to the TSA condition alone did not influence attitudes about gun control across the board; prior, longer-term violent media exposure had to be factored in.

Theoretical implications

This research extends the literature around priming and desensitisation, integrating both priming and desensitisation theory to explain how social media advertising can influence attitudes towards the brand and associated social issues. There is established priming literature on how violence-related cues can prime aggressive thoughts. This current study extends this framework to further demonstrate that violence-related cues can also be related to attitudes towards social issues depending on the level of desensitisation. Both more active, immersive media use (video games) and passive media use (television) contribute to desensitising heavy users and may limit the impact of priming from social media content on their attitudes and their emotional responses to images.

Moreover, research on social media advertising should consider both intended and unintended effects. It is common to examine attitude towards the brand as an outcome variable. As we show in this study, social media advertising effects can also spill over into attitudes towards a related social issue primed by advertising. As consumers increasingly expect brands to take positions on social issues,⁸⁴ advertising research needs to pay more attention to the nexus of business and social

dimensions of social media advertising induced attitude change.

Practical implications

These findings are also important in light of the evolving ways brands communicate and the influence and opportunities of social media. The relationship with support for gun control is presumably an unintended consequence of the TSA Instagram content, but an important finding in the context of influencing public opinion in the modern, post-mass communication era. While brands are increasingly challenged to break through the clutter and earn the attention of their audiences, their efforts to do so may miss their intended goal and achieve something else entirely. This references the classic tension between advertising creativity and effectiveness and addresses the question of whether ads have to be creative to be effective or if effectiveness can be lost in a quest for creativity. These graphic images of weapons posted by the TSA, while shown to be creative enough to earn attention from both publishers and consumers, were not shown to be effective in affecting brand attitudes.

Further, this research shows that the impact of exposure to social media advertising may be much more complex than generally assumed — being influenced by prior, more long-term media exposure. While managers know that different audiences respond differently to social media content, these results draw attention to the importance of an audience’s current and prior media diet.

Limitations and future research

A controlled experiment needs to balance internal and external validity. To enhance external validity, we developed stimulus

materials using real, unfiltered, unaltered Instagram content in order to simulate an authentic viewing experience. We deliberately selected two Instagram accounts that differed in source cues (TSA versus Reynolds Kitchens) and content to serve as our two experimental conditions. While these two conditions differ in a few aspects, each condition simulates a real-life experience of viewing a government agency or a business Instagram account. We were interested in studying the fact that TSA shows mostly weapons images on Instagram, both the content and the context, not either aspect in isolation. Future research, however, will attempt to tease out the source effects and content effects.

While effect sizes for the two interaction terms in this study were relatively small, in violent media effects research, it is quite common to interpret the practical significance of results with small effect sizes, particularly for interaction terms.^{85–87}

In addition, this study relies on single measures and self-reports for prior crime show viewing and violent video game playing to streamline the survey experience. Single-item measures lack the nuance and specificity of multi-measure indices; however, multi-measure indices take considerably longer to complete. Future research should include supplemental and more specific measures about exposure to violent media to better understand the influence.

On a related note, strictly speaking, frequencies of crime show viewing and violent video game playing are not measures of desensitisation, and exposure to violent content does not necessarily lead to desensitisation; however, research has found that chronic violent video game exposure (ie high violent video game playing) showed reduced P300 amplitude and increased P300 latency to violent images, suggesting

that it took them longer to categorise the violent images and supporting the argument that these individuals are desensitised to violence.⁸⁸

CONCLUSION

This research finds that the impact of social media advertising may go well beyond education and information to influencing attitudes towards social issues, extending both priming and desensitisation literature in exploring the relationship between violent social media images, prior exposure to violent media and gun control attitudes. While many brands have traditionally avoided taking positions on political issues, the always-on, engaging nature of social media, opportunities for earned media and a uniquely vocal U.S. President may be contributing to greater brand involvement in issues.⁸⁹ Brands from Airbnb and Coca-Cola to Budweiser tapped into conversation around the immigration ban in their 2017 Super Bowl ads, and brands, such as Patagonia, are using social media to help support rogue federal agency Twitter accounts posting information about climate change.⁹⁰ In light of this, this study has implications not only for governmental agency brands, but for any brand or communicator interested in influencing public opinion about issues or joining the political, cultural conversation. The lack of persuasive intent towards a social issue — the fact that the TSA is, in fact, just sharing their authentic activities and not trying to influence attitudes towards gun control — may unintentionally make the Instagram content more influential.

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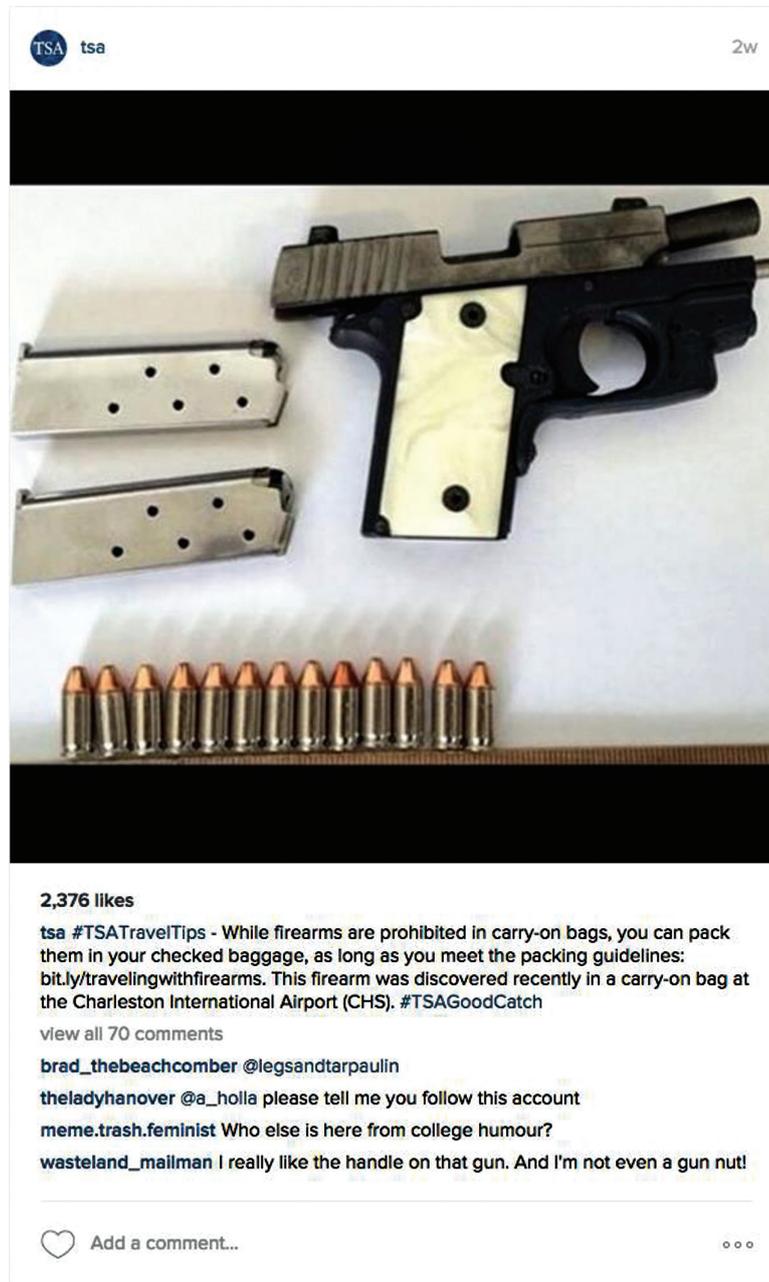
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APPENDIX I

Sample Stimulus Images

A. Sample TSA Image



B. Sample Reynolds Kitchen Image

