

ORIGINAL ARTICLE

The Influence of Online Comments on Perceptions of Antimarijuana Public Service Announcements on YouTube

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Web-based media often present multiple sources of influence, such as mass media and peers, within one interface. When individuals identify with peers who are visually anonymous and with whom they do not directly interact, they should be susceptible to social influence from that group. This study examined the interplay among antimarijuana public service announcement (PSA) videos in a YouTube environment and adjacent message postings from other viewers about those videos. Results show that supportive or derisive comments affected PSA evaluations but not marijuana attitudes, whereas the interaction effect of identification and comment valence affected both PSA evaluations and marijuana attitudes. Other factors previously related to PSA evaluation such as message strength and perceivers' sensation-seeking did not interact with hypothesized factors.

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New communication technology expands the means by which persuasive messages are disseminated to receivers. Advertisers, as well as public health agencies, have become keenly interested in the use of multimedia “Web 2.0” systems—participatory Web technologies—that foster user-generated content alongside a central message of some kind because of their popularity and penetration among certain audiences (Duffy & Thorson, 2009). At the same time, the openness of these participatory technologies has the potential to complicate or subvert the intended effects of central messages by juxtaposing contradictory sentiments of other users alongside of the central messages that a persuasive source intends to convey. Given that these systems are new, little research to date has investigated how the juxtapositions of multiple sources affect responses to their messages. Given these sites' potential to affect attitudes, however, the articulation and demonstration of an analytic understanding of such systems is important.

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Among the uses of these new technologies is the transmission of public service announcements (PSAs) in health promotion and drug prevention campaigns. “Public service announcements (PSAs) are designed to inform or induce certain behaviors in specific audiences, generally for noncommercial profit using mass media-approaches” (Bator & Cialdini, 2000, p. 527). PSAs may be described as short advertisements that advocate some socially desirable behavior, such as wearing seatbelts, conserving water, preventing various illnesses, and avoiding various risky behaviors, including the use of drugs (see <http://www.psaresearch.com>). Commissioned by governments, public health agencies, or broadcasters themselves, television and radio PSAs are a mainstay of public health campaigns in the United States and elsewhere. Their attributes and effects are widely studied (Crano & Burgoon, 2002).

Recently, public health campaigns have employed PSAs via the Internet as an alternative to traditional broadcast dissemination. For instance, the U.S. government’s National Youth Anti-Drug Media Campaign’s 100 million USD budget contained significant funding for Internet advertising, in order to pay “particular attention to youth social settings where pro-drug messages are increasingly prevalent” (Office of National Drug Control Policy [ONDCP], 2008). (Readers who are unfamiliar with PSAs may browse YouTube.com and search for “PSA” or “Public Service Announcement” for an abundance of such messages; there are 200 examples under the search term, “Public Service Announcements Drugs” alone as of this writing.)

Web 2.0 technologies such as YouTube.com—the largest video-sharing site on the Internet—enable participative and collaborative communication with respect to otherwise one-to-many messages. Instead of consuming content posted by a single broadcaster, YouTube users also observe messages about the videos posted by their peers before, after, or during the consumption of video PSAs. In fact, the U.S. ONDCP posted videos of award-winning PSAs on YouTube in 2006. Almost immediately, a number of YouTube users posted derisive comments and satirized the PSAs. Apparently assuming that such comments interfere with the PSAs’ persuasive potential, the ability to comment on the ONDCP’s YouTube videos was suspended (ONDCP, 2006). Whether such comments actually influence attitudes about PSAs or drugs, and why, is not clearly known.

Walther et al. (2010) suggest a paradigm with which to approach such technologies, by conceptualizing the multiple message senders that new media present in juxtaposition to each other as simultaneous but familiar kinds of influence sources, such as advertisers/persuaders, peers, or interpersonal agents. In this way, researchers may apply established theoretical principles related to appropriate kinds of sources in order to make sense of these seemingly novel combinations. Our work follows this approach in order to explain how online users are influenced by other users, with respect to PSAs and the comments that appear about them displayed via YouTube, by conceptualizing comments as emanating from anonymous peers and drawing on the social identification/deindividuation (SIDE) model of computer-mediated communication effects (Reicher, Spears, & Postmes, 1995). From this perspective, the viewers’ level of identification with the people posting comments is

expected to affect whether the comments influence evaluations of the PSA and/or its topic.

The understanding of how online antidrug PSAs affect viewers is further complicated by known relationships between viewers' individual differences in sensation-seeking—"a critical consideration in testing the diffusion and effectiveness of public health campaigns targeted at adolescents" (Lachlan & Westerman, 2006, p. 749)—and the sensation value of the messages that are intended to persuade them. Drawing on activation theory (Donohew, Palmgreen, & Duncan, 1980), research has established that individuals with higher levels of sensation-seeking not only are more likely to try marijuana but are also sensitive to elements that make video messages arousing: Individuals with higher levels of sensation-seeking attend to PSA videos that offer more sensation value than do individuals with lower levels of sensation-seeking (Palmgreen et al., 1991). We therefore explore the effects of PSA sensation value with participants' naturally occurring levels of sensation-seeking by replicating previously studied effects of sensation but in the novel environment of a YouTube presentation.

The effects of peer comments on reactions to PSAs

The traditional Web was a one-to-many medium and in that respect was similar to other mass communication channels. As mentioned above, recent Web technologies facilitate users' ability to post comments about content. In some cases, participative technologies foster *interactive* exchanges, that is, reciprocally referential statements that, despite their asynchronous nature, evolve into a dialogue (Rafaeli, 1988). In many cases, however, commenting takes the form of *reactive* exchanges, i.e., viewers post comments in response to a central message or media clip, and they may occasionally respond to another commenter, but rarely if ever do they append subsequent comments-on-comments that would develop a dialogue of mutually contingent responses among them. For example, picture-sharing systems allow users to comment on photos placed online, or "tag" content that facilitates later searching, linking, and the discovery of conceptually similar content on others' sites, without typically fostering mutual discourse among viewers. Likewise, YouTube viewers tend to post comments about videos; they seldom respond to other comments and almost never comment on comments about comments. In contrast, Facebook, one of the most popular social network sites, allows users to place comments on their friends' "walls," with the potential of commenting on and replying to such comments, cocreating interactive dialogues among friends. As alluded to above, Walther et al. (2010) suggest that understanding how multiple sources of content affect users' experience may be approached through characterization of these sources in terms of familiar roles in extant communication models and by judicious application of theories that fit those functional roles. Although a number of approaches may be useful in the current setting, two specific theoretical approaches took precedence: The SIDE model of Computer-Mediated Communication (CMC) effects and the activation theory of sensation-seeking and reception to mass media messages.

SIDE theory: The influence of online peers

The SIDE model provides a useful theoretical approach to understanding the influence of visually anonymous peers in CMC, which may explain the effects of comments about PSAs posted on YouTube by other viewers. Although most PSAs are produced by institutional sources, and they are frequently labeled as such in their presentations by organizations such as the Partnership for a Drug-Free America, comments about videos may be attributed to other YouTube viewers. As such, YouTube commenters may be experienced by viewers as peers, especially when there is no visually identifying information about commenters that would suggest otherwise.

The SIDE model focuses on visual anonymity in CMC as a primary factor leading users to identify with abstract groups rather than with individuals. Unlike some other Web 2.0 systems such as Facebook's "wall postings" (Walther, Van Der Heide, Kim, Westerman, & Tong, 2008), comments on YouTube are not associated with pictures or visual icons depicting their contributors. They are preceded by contributors' pseudonyms, which often reflect humorous or attitudinal self-categorizations, personality traits, or favored activities but rarely if ever refer to offline, individuating identity (as seen in analyses of Internet Relay Chat usernames; Bechar-Israeli, 1995). Although one can expend effort to search out profile information about such YouTube posters, this information is not visually present with their comments. Although other research focuses on *discursive* anonymity (Scott, 1999), SIDE gives primary consideration to *visual* anonymity, which "associated with mediated communication is crucial for predicting and understanding behaviour in the new computer medium" (Lea, Spears, Watt, & Rogers, 2000, p. 48).

The SIDE model holds that visual anonymity leads communicators not to discern individuals' interpersonal differences. As a result, they experience depersonalization, that is, they do not focus on others' individuating characteristics and they are not motivated to do so. Drawing on social identity and self-categorization theories (Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), depersonalization leads people to identify with others on the basis of assumed similarity with the undifferentiated social group's members *as a whole* rather than on the basis of interpersonal similarities and differences with specific individuals (Reicher et al., 1995). In other words, in the absence of visual cues, depersonalization leads people to relate online on the basis of ingroup/outgroup dynamics. Through self-definition with the group, they are attracted to other group members through abstract valuation of the social group, leading to greater potential social influence by group members. As Lee (2006, pp. 423–424) reviews:

Physical isolation and visual anonymity of CMC obscure within-group interpersonal differences and, thereby, depersonalize self-perception and the perception of other(s) People come to perceive themselves and others as representatives of social groups rather than idiosyncratic individuals and subsequently become more susceptible to group influence.

Lack of individuating information leads to a distorted perception of greater attitudinal consensus in a group, as well (Lee, 2006). Thus, when CMC includes visual anonymity, the SIDE model predicts greater conformity to the apparent consensus of the group with regard to participants' perceptions, evaluations, and attitudes (Lee, 2006, 2007; Postmes, Spears, Sakhel, & de Groot, 2001).

Although the SIDE model has been supported in a variety of studies on online behavior (see for review Spears, Lea, & Postmes, 2001), its broad application to CMC has come under recent criticism (e.g., Walther, 2009). For one thing, many SIDE experiments on small, interacting groups have constrained the opportunity for CMC interactants to communicate over extended periods. Other studies have preempted interaction completely by displaying prescribed messages to subjects as if they were spontaneous interactive comments by other online group members. These methods questionably generalize to spontaneous interactive groups (Walther, 2010). As Hogg and Tindale (2005) mention in their review of social identification theory applied to small groups, the theory was developed and applies best for subjects who are aware of others' attitudes and behaviors but do not interact with them directly (see also Wang, Walther, & Hancock, 2009).

These very boundary conditions—visually anonymous communication and awareness of others' positions but constrained interaction with them—do reflect pseudonymous online communication environments with no interactivity among participants. As such, SIDE has been applied well to the analysis of postings in public online discussion boards (e.g., Douglas & McGarty, 2001), and it seems to be a good theoretical approach to certain Web 2.0 platforms, where one-off, noninteractive, pseudonymous messages are common, such as those that typify YouTube comments.

Indeed, the results of a number of studies in online environments are consistent with the notion that individuals identify with anonymous online commenters and that their attitudes are influenced by such sources. In a study of pseudonymous seller ratings in eBay, Resnick, Zeckhauser, Friedman, and Kuwabara (2000) found that the amount and valence of seller reviews produced demonstrable effects on the selling prices of equivalent goods tendered to differentially rated sellers. Lee, Jang, and Kim (2009) demonstrated that readers' comments posted to online newspaper stories affected other readers' attitudes about the issues described in the news stories. Sundar and Nass (2001) found that people perceived news stories presented on computers as having greater quality when they believed that the information was selected by other computer users as opposed to stories that appeared to be chosen by news editors, computer algorithms, or even by the subjects themselves. Wang, Walther, Pingree, and Hawkins (2008) found that advice about chemotherapy and coping that were posted in asynchronous online discussion groups affected attitudes more strongly when they appeared to be posted by peers than by experts. Particularly informative are the results of a study by Edwards, Edwards, Quing, and Wahl (2007), who tested the effects of anonymous online professor evaluations in a RateMyProfessor.com environment. In addition to seeing an experimentally contrived positive or negative set of comments about a professor, raters also watched

a video clip of that professor teaching a course, which was held constant. Despite whatever impressions of the professor subjects may have made due to their own observations, the posted comments caused significant differences in subjects' ratings of instructor attractiveness and credibility, their attitudes toward course material, and their motivation to learn. With particular regard to antimarijuana PSAs and peers, but in a different Internet venue, research has explored how online, real-time chats among adolescent peers who watch antidrug PSA videos mitigate the intended effects of the videos (Alvaro, Crano, Siegel, Grandpre, & Miller, 2008; David, Cappella, & Fishbein, 2006). Each of these studies reinforces the influence of comments by online anonymous or pseudonymous peers. On this basis, we predict:

H1: The valence of comments appearing with a PSA on YouTube directionally affects viewers' evaluations of the PSA.

That is, seeing negative comments about the PSA and the position it advocates leads viewers to generate more negative evaluations, whereas seeing positive comments leads to more positive appraisals of the PSA, despite viewers seeing and hearing the PSAs for themselves.

Although PSA evaluations are a proximal outcome of PSAs, and the effect of comments posted to YouTube may affect those evaluations, PSAs themselves have a more distal focus—in this case, observers' attitudes toward marijuana use—which may be less susceptible to brief exposures to PSAs and/or the YouTube comments associated with them. One's evaluation of a PSA is a good but imperfect predictor about one's attitude toward the topic it attempts to influence (Dillard & Peck, 2000). The relevance of the topic for individuals as well as their knowledge about the issue interact with PSA evaluations, among other factors, in affecting attitude toward the topic (Nan, 2008). Moreover, previous research suggests that in order for televised PSAs to affect marijuana attitudes, observers must see them numerous times (Palmgreen, Lorch, Stephenson, Hoyle, & Donohew, 2007). Several other factors also suggest caution in making predictions about potential effects on marijuana attitudes in this study. Many efforts at marijuana prevention are aimed at individuals between ages 12 and 17, the age group in which individuals are most likely to try marijuana for the first time, thus constituting the most at-risk and potentially persuadable group (Substance Abuse and Mental Health Services Administration [SAMHSA], 2007a, 2007b). This study focused on older individuals.

That said, in the state of Michigan where this research took place, 18–25 year olds are the age group that is second most at risk for initial marijuana use: While 49,000 state residents first tried marijuana between the ages of 12 and 17, another 38,000 residents first tried marijuana between the ages of 18 and 25, according to 2004–2005 estimates (SAMHSA, 2007a, 2007b). Thus, any effects on marijuana attitudes in this present sample are effects of considerable potential importance. We attempt to assess these effects as described in the following hypothesis, where positive YouTube comments about an antimarijuana PSA should lead to more agreement about the negative aspects of marijuana:

H2: The valence of comments appearing with a PSA on YouTube directionally affects viewers' attitudes toward the detrimental risks of marijuana use.

In terms of the theoretical mechanism underlying these effects, researchers have assessed one's degree of social identification with a group (Spears & Lea, 1992) in order to demonstrate whether social identification is the mechanism accounting for the influence of others on a perceiver (Tanis & Postmes, 2003). The social identification factor, so measured, may also interact with other predictors. On that basis, the next hypothesis is advanced:

H3: Viewers' identification with commenters interacts with the valence of comments about a PSA on YouTube such that, when comments are positive, greater identification increases (a) positive PSA evaluations and (b) greater risk perceptions of marijuana use, but, when comments are negative, greater identification produces (a) more negative PSA evaluations and (b) less perceived marijuana risk.

PSAs, sensation-seeking, marijuana use, and message sensation value

In addition to variations in social identification, another systematic individual difference may play a role in PSA evaluations: sensation-seeking. Although it is not directly tied to SIDE theory, its robust findings in previous research on televised PSAs warrants consideration and exploration of its continued potency in a new media environment. Advances in PSA research using activation theory have examined the relationship between the sensation-seeking characteristics of PSA viewers, their predilections toward drug use, and variations in the sensation value provided by antidrug PSA video messages with respect to attitude change among prospective drug users.

Sensation-seeking is conceived as a biologically-based trait describing "that persons differ reliably in their preferences for or aversions to stimuli or experiences with high-arousal potential" (Zuckerman, 1988, p. 174). Research has established that sensation-seeking is a strong predictor of drug use, and therefore, targeting individuals who are high in sensation-seeking is a valuable approach in the design of antidrug campaign messages (Everett & Palmgreen, 1995; Palmgreen, Donohew, Lorch, Hoyle, & Stephenson, 2001; Palmgreen et al., 2007; Stephenson, 2003). Nevertheless, because high sensation-seekers are attracted to drugs and other risky activities, they tend to eschew antidrug messages, and numerous studies have established that higher levels of sensation-seeking lead to poorer evaluations of antimarijuana PSAs (e.g., David et al., 2006). These findings suggest that a baseline relationship between sensation-seeking and PSA evaluations in a YouTube environment may exist, and if so, may override or interact with the effects of the content of other viewers' posted comments associated with the PSAs.

H4: There is a negative relationship between observers' level of sensation-seeking and their evaluation of PSAs.

Sensation-seeking not only affects the proclivity to try drugs, it also affects one's susceptibility to the influence of different kinds of media messages as well. Activation theory proposes that individuals' attention to media messages is determined by the extent that the messages activate individuals' optimal level of stimulation (Donohew et al., 1980). "[I]f the message is too powerful or too pallid," according to Harrington, Lane, Donohew, and Zimmerman (2006, p. 142), viewers "will turn away and seek another source of stimulation that helps them achieve their desired state. If activation remains within some acceptable range, however, it is probable that individuals will continue exposure to the information."

Research has established that observers with high sensation-seeking tendencies prefer highly stimulating PSAs and tend to respond well to PSAs that provide high sensation value (Palmgreen et al., 1991; Palmgreen, Stephenson, Everette, Baseheart, & Francies, 2002). Message sensation value (MSV) is an attribute that refers to how much a message stimulates sensory, affective, and arousal responses. Features that increase MSV of televised PSAs have been found to include "unusual use of formal features" (Palmgreen et al., 1991, p. 220) such as extreme close-ups, frequent visual edits, special effects, horrifying images, the heavy use of music and sound effects, and particular content formats (e.g., surprise/twist endings, acting out behavior rather than "talking heads" that discuss behavior; see for review Morgan, Palmgreen, Stephenson, Hoyle, & Lorch, 2003; Palmgreen et al., 1991). These effects have been shown to affect viewers' evaluations of PSAs' quality: High sensation-seekers provide more positive evaluations of high-MSV PSAs than of low-MSV PSAs (Zuckerman, 1979, 1994). Thus, an additional hypothesis assesses whether differences in the MSV of PSAs transmitted in a YouTube environment arouse similar effects as they do on television.

H5: There is an interaction between PSAs' MSV and observers' individual differences in sensation-seeking with regard to their evaluation of PSA: As individuals' sensation-seeking is greater, they evaluate high-MSV PSAs more positively and low-MSV PSAs more negatively, whereas individuals with lower sensation-seeking evaluate low-MSV PSAs more positively but high-MSV PSAs more negatively.

Method

Participants

Participants were 152 college students enrolled in communication courses at a Michigan State university who received extra credit for their effort. Fifty-seven percent of participants were male, and the sample included 74.3% White/Caucasian, 12.5% Black/African American, 5.9% Asian/Pacific Islander, 3.3% Hispanic/Latino, 0.7% Native American, and 3.3% "other." The mean age of the participants was 20.20 ($SD = 1.81$), ranging from 18 to 33.

Stimulus materials

YouTube pages

YouTube stimuli were created by uploading PSA videos to YouTube and then adding selected comments to the pages so that they appeared under the videos. These pages were then copied to a local server, and the underlying source code was edited so that, although the hyperlinks on the pages were visible, they did not actually invoke other pages if a reader clicked on them (which was not disclosed to participants). The links to the PSA videos, however, were active and began playing when they were executed with a mouse click. In all other respects, the stimuli appeared to be actual YouTube pages (although it is not certain that all subjects believed that they were actually interacting with YouTube.com). Sixteen different stimulus pages were created to represent a complete cross on a number of variables discussed in subsequent sections.

Comments

Forty comments were collected from actual statements appearing on YouTube as responses to antimarijuana PSAs. These comments were analyzed in terms of their valence (favorable toward the antimarijuana PSA and unfavorable toward marijuana, or unfavorable toward the PSA and favorable toward marijuana) and message intensity. Originally, message intensity and profanity (Burgoon, Jones, & Stewart, 1975), which are common in YouTube comments, were considered possible factors affecting arousal and the influence of YouTube comments on subjects' reactions to those comments, but subsequent analyses determined that language intensity had no main or interaction effects, and this variable was dropped from further consideration. Thus, four sets of comments represent two versions each of favorable or unfavorable comments.

In order to identify the comment valence, six experienced raters evaluated each comment for message valence on a 3-point scale (1 = negative, 1.5 = neutral, 2 = positive), with interrater reliability attaining Cronbach's $\alpha = .92$. From these 40 original statements, 10 were selected that offered the most positive valenced ratings and 10 were selected with the most negative ratings. These comments were allocated into four sets of five comments each, with each set containing five positive or five negative comments. Positive comments included, "I so, remember this commercial from long ago . . . it's a great one!!" "I honestly believe that the Partnership For A Drug-Free America scared . . . people intentionally in order to deter them from drugs. What can I say, it worked for me," "I remember seeing this one too. It's good to mention that sometimes 'just saying no' isn't enough. But you still have to be brave." Negative comments included, "yeah I hate those crappy anti-drug commercials . . . weed rules!!!" "This video is so crap. Why can't they just show the real consequences of marijuana use," "This is a stupid argument," "Not being in control of yourself while smoking weed is a lie they tell you to scare you. It's not like drinking alcohol," and "Were they trying to make a point? Because they didn't." (Misspellings were included that appeared in the original sources.) These comments

were then embedded on YouTube pages in a manner that completely crossed the four message sets with four antimarijuana PSA videos, which are described below.

PSA videos

In order to test the effects of greater or lesser MSV among PSAs, four PSA videos were identified that reflected two levels of MSV (Lane, Harrington, Donohew, & Zimmerman, 2006). In previous research, Morgan et al. (2003) coded 109 antidrug television PSAs on attributes posited to constitute MSV, including two that were developed specifically to appeal to high or low sensation-seekers (Palmgreen et al., 1991); they validated these elements by establishing the correlations of these elements with perceptions of MSV provided by naïve viewers. The specific coding and scaling attributes are reported in detail by Morgan et al. On the basis of that research, several antimarijuana PSAs were identified as reflecting significantly high or low MSV, which have subsequently been used in different experiments on PSAs (Harrington et al., 2003; Lane et al., 2006). Two PSAs that rated high and two that were low in sensation value were selected from this corpus.

One high-MSV PSA depicts a young man loudly drumming on numerous objects in a hyperactive manner, with many visual edits and effects, and a voiceover talking about the difficulty and importance of talking to children about marijuana. A second features the graphic “a true story” over frequent visual cuts of a young man and friends, with a voiceover discussing why the narrator liked marijuana; the man draws a pistol to his head and fires, while describing marijuana as a “game of Russian roulette,” after which he is seen in a wheelchair as he discusses his brief use of marijuana and his now-permanent need for anticonvulsive medication. One of the low-MSV messages shows a young man sitting in the passenger seat as a woman drives, with no other activity, after which a graphic states, “another missed opportunity to talk to your child about drugs.” Another shows a young man, alternating between a medium shot or a head shot, as he discusses how “smoking pot” induced laziness, not wanting to look for a job, and detachment from society, while “getting nothing out of it.” The PSAs within high versus low MSV also varied with respect to message cognition value (Palmgreen et al., 1991), but cognition value was not analyzed in this study, and the two versions of the high- and low-MSV PSAs were considered replicates. These PSAs were uploaded to individual YouTube pages, where the comments were added as described in preceding sections. The final set of YouTube pages featured a complete cross of PSA sensation value (high/low) \times comment message valence (positive/negative). Each research participant was only exposed to one of these pages, comprising a between-subjects design for the experiment.

Procedure

Data were collected over 3 weeks using the Longitudinal Study Engine, a software application that has been developed at Michigan State University for the secure collection of data anonymously (Anthony, 2010). Volunteers participated in a computer laboratory or from sites of their own choice that provided Internet access.

After logging in to the research system, participants read and clicked through an implied consent form, after which they answered background questions about watching YouTube (in order to qualify for further participation) and whether they had posted or seen a PSA on YouTube (neither of which affected any other outcomes).

The software application randomly directed each participant's Web browser to one of the experimentally created YouTube mock-ups. Instructions directed participants to watch and listen to the video and to look at all elements of the page. When participants felt they had examined the page completely, they clicked to advance the browser to an online questionnaire where they completed self-administered dependent variables, covariates, and demographic measures. A total of 172 questionnaires were collected and 20 incomplete questionnaires were dropped when analyzing the data, resulting in a final sample of $N = 152$.

Measures

Social identification by participants with YouTube commenters was assessed using 6-item bipolar scales used in previous SIDE research by Spears and Lea (1992; personal correspondence, M. Lea, 1995). Higher scores on the 7-point scales indicated greater levels of identification. Sample items included "I feel a bond with these people," "I see myself as a member of this group," and "I regard this group as important" ($\alpha = .71$). Although this α level was lower than desired, subsequent analyses indicate that the danger of Type II error that may accompany suboptimal reliability did not affect this study.¹

Perceived PSA effectiveness was assessed using the mean of eight items measured on a 7-point scale ranging from 1 (strongly disagree) to 7 (strongly agree). The items were adapted and modified from previous research (Kang, Cappella, & Fishbein, 2006; Zhao, Cappella, Fishbein, & Barrett, 2005). Items included "the PSA I watched was convincing," "the PSA I watched was important," and "the PSA I just watched would keep me away from using marijuana" ($\alpha = .93$).

Marijuana attitude was measured using the approach of federal research on drug usage and risk. The scales reflected the perceived risk from marijuana use and were adopted from the 2006 National Survey on Drug Use and Health (Research Triangle Institute, 2006). The measure includes six items on a 4-point scale ranging from 1 (no risk) to 4 (great risk), with regard to how much people risk harming themselves physically, legally, and psychologically when they smoke marijuana once per month or once per week. The mean of these six items was used to indicate attitude toward marijuana ($\alpha = .90$). The National Survey on Drug Use and Health also provided a standard measure of marijuana use. Participants indicated whether they never used marijuana, used it more than 1 year ago, 30 days to 1 year ago, or less than 30 days ago.

Sensation-seeking was measured using four items adapted from previous research (Hoyle, Stephenson, Palmgreen, Lorch, & Donohew, 2002). The measure asks participants whether they like to explore strange places, do frightening things, have new and exciting experiences, and prefer friends who are exciting and unpredictable. Participants responded on a 7-point scale ranging from 1 (strongly disagree) to 7

(strongly agree). The mean of these four items was used to indicate the sensation-seeking level of each participant ($\alpha = .85$).

Results

Hypothesis 1 predicted that the valence of comments appearing with a PSA on YouTube affects viewers' evaluations of the PSA such that, despite the variations among the four actual PSAs appearing in the various YouTube mock-ups, negative comments lead to poorer PSA evaluations, while positive comments lead to more favorable evaluations. One-way analysis of variance (ANOVA) involved the positive versus negative comments' valence as the independent variable and evaluations of the PSAs as the dependent variable. The hypothesis was supported, $F(1, 149) = 16.76$, $p < .001$, $\eta^2 = .10$. PSAs accompanied by positive comments were perceived to be better, $M = 4.17$, $SD = 1.52$, than the same PSAs accompanied by negative comments, $M = 3.26$, $SD = 1.19$.

Hypothesis 2 predicted that the comments appearing with a PSA on YouTube affect viewers' attitudes toward the detrimental risks of marijuana use. Hypothesis 2 was not supported: One-way ANOVA with comment valence as the independent variable and perceived marijuana risk as the dependent variable produced no significant effect, $F(1, 150) = .93$, $p = .34$. The valence of other viewers' comments that accompanied the PSAs did not appear to affect perceptions of marijuana's potential harmfulness.

Hypothesis 3 focused on participants' identification with comment posters as the dynamic underlying the influence that comments about a PSA may have on (a) perceptions of the PSA and (b) perceptions of the risks of marijuana use. More specifically, it predicted that the positive versus negative valence of comments interacts with readers' identification with commenters such that (a) greater identification increases positive PSA evaluations when comments are positive but reduces PSA evaluations when comments are negative and (b) greater identification increases marijuana risk perceptions when comments are positive but reduces marijuana risk perceptions when comments are negative. Analyses were conducted using the SPSS GLM procedure, which simplified analysis of interaction effects between categorical (comment valence) and continuous (social identification) independent variables, on the dependent variables of (a) PSA evaluation and (b) perceived marijuana risk.

With respect to subjects' PSA evaluations, there was a significant interaction between subjects' level of identification with message posters and the valence of comments, $F(1, 147) = 26.58$, $p < .001$, adjusted $R^2 = .26$. Greater identification with the commenters led to better PSA evaluations when comments were positive, $r(78) = .52$, $p < .001$, but greater identification led to poorer PSA evaluations when comments were negative, $r(73) = -.25$, $p = .035$. Thus, H3a was supported (see Figure 1). Although main effects were also significant for the social identification factor, $F(1, 147) = 4.52$, $p = .035$, and for the comment valence factor, $F(1, 147) = 16.30$, $p < .001$, these effects were inappropriate to interpret given the significant disordinal interaction of these factors.

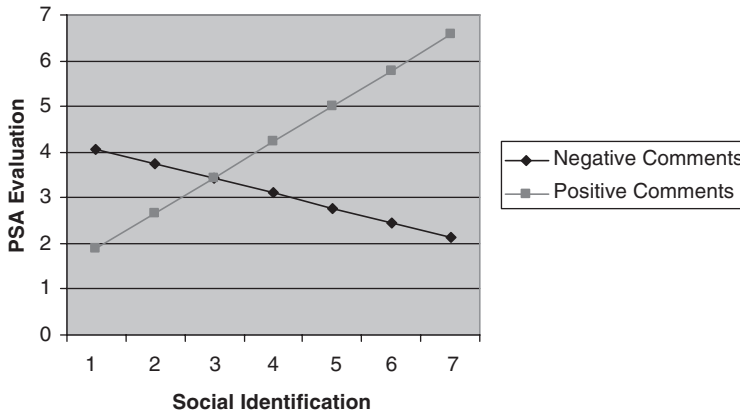


Figure 1 Estimated pattern describing the relationship of participants’ social identification with commenters and comment valence on PSA evaluations.

Similar results were obtained with respect to participants’ assessments of the risks associated with marijuana use. Identification with commenters and the valence of comments produced a significant disordinal interaction effect, $F(1, 148) = 20.07$, $p < .001$, adjusted $R^2 = .11$. There was a significant main effect for comment valence as well, $F(1, 148) = 16.63$, $p < .01$, but this effect is overridden by the disordinal interaction. These results support H3b: The degree to which participants identify with comment posters appears to make their marijuana attitudes vulnerable to the influence of those comments. The more that viewers identify with message posters when those posters’ comments are positive with respect to the PSA, the more comments increase observers’ perceptions of the harmful risk of marijuana use, $r(78) = .30$, $p = .007$. In contrast, the more that observers identify with message posters, and comments denigrate the PSA and extol marijuana, the less risky observers perceive marijuana to be, $r(74) = -.39$, $p = .001$ (see Figure 2). It is noteworthy that the valence of comments alone did not affect participants’ perceptions of marijuana risk, as seen in the examination of H2. Only when the nature of the comments is considered in light of observers’ identification with the sources of those comments do differences in marijuana risk perceptions occur.

The next hypotheses assessed the relationships of participants’ sensation-seeking and the sensation value of the PSAs on PSA evaluations. H4 predicted a negative relationship between subjects’ sensation-seeking and their evaluations of PSAs. A bivariate correlation test revealed that greater sensation-seeking scores were associated with more negative evaluations of PSAs, $r(150) = -.34$, $p < .001$. This finding is consistent with previous research that individuals with greater sensation-seeking are likely to have promarijuana attitudes, and such attitudes would lead to negative appraisals of antimarijuana PSAs (e.g., David et al., 2006).

H5 predicted that participants’ degree of sensation-seeking led them to evaluate YouTube PSAs that display high MSV differently than PSAs that have low MSV.

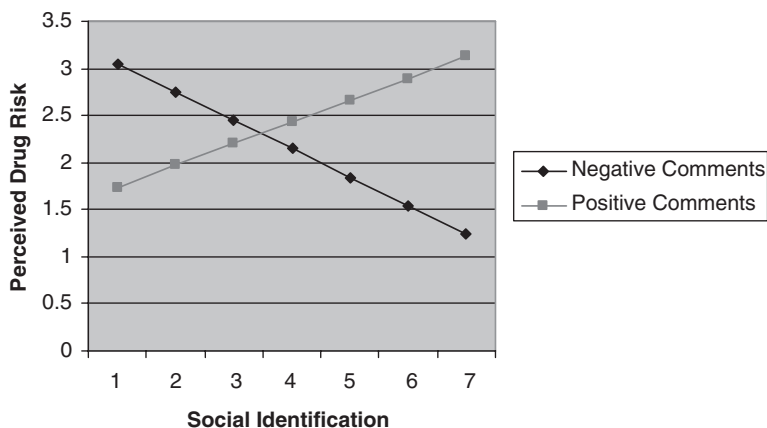


Figure 2 Estimated pattern describing the relationship of participants' social identification with commenters and comment valence on perceived risk from marijuana use.

The GLM procedure was used to examine the effects of sensation-seeking scores (a continuous independent variable) and the two-level independent variable of videos' MSV, on the dependent variable of subjects' PSA evaluations. The interaction effect was not significant, $F(1, 147) = .19, p = .67$. A main effect of sensation-seeking on PSA evaluations was revealed, $F(1, 147) = 18.95, p < .001$, which simply replicates the findings of H4. There was no main effect of MSV, $F(1, 147) = .01$. The lack of a sensation-seeking by MSV interaction differs from previous studies (using similar PSAs) about the effect of PSAs' sensation value (e.g., Morgan et al., 2003). It is likely that the appearance of comments accompanying, and modifying perceptions of PSAs, dampened the simple effect that PSAs' sensation value has been found to have when they are broadcast unaccompanied by comments.

Given the significant effect of subjects' sensation-seeking level on their evaluations of the PSAs, a final analysis was conducted to ascertain whether sensation-seeking interacted with the other hypothesized variables, comment valence, or commenter identification. An omnibus analysis testing all independent variables—high versus low MSV, positive versus negative comment valence, and the continuous variable of social identification—yielded no significant three-way interaction on PSA evaluations, $F(1, 143) = .098, p = .76$, or with respect to marijuana risk, $F(1, 143) = .46, p = .50$. The two-way interaction of identification-by-valence was significant, as it had been in the test of H1 and H3, as was the main effect of comment valence, with respect to both PSA evaluation and marijuana risk, as seen in the test of H3. There were no main or interaction effects involving sensation-seeking in these equations. Although participants' sensation-seeking seems to exert some effect on PSA evaluations when it is assessed independently, the hypothesized findings about social identification and comment valence appear robust to the effects of individual differences in sensation-seeking.

Discussion

New communication technologies such as YouTube raise interesting questions about the communication processes that accompany the transmission and perception of social influence attempts. Many technologies, including Web 2.0 “participatory Internet” systems, feature the juxtaposition of multiple influence agents in ways that defy the serial transmission and discussion patterns of traditional media and interactive communication settings. By classifying these newly appearing sources using reliable constructs from other frameworks, we may apply the dynamics from existing theories to illuminate how otherwise novel technologies operate.

This research examined whether observers related to YouTube message posters as peers, or common members of a large social group similar to themselves, and how their social identification with message posters facilitates attitudes about specific antimarijuana PSAs and toward marijuana’s harmful potential. The comments that appear to have been left by anonymous peers regarding those videos shaped perceptions of the PSAs’ effectiveness. But the nature of the comments, alone, does not provide a full accounting for their effects on observers. The interaction of comments along with the social identification of observers to comment posters adds explanatory power to the effects of comments on PSA evaluations, and only the interaction of these factors accounts for attitudes toward marijuana. Previous research has found that viewers’ sensation-seeking levels, and the level of sensation provided by PSAs, affect the manner in which PSAs influence their viewers. This study included these factors and tested them in a manner that would allow them to impact the relationship of comments and/or identification with commenters in terms of PSA evaluation and perceived marijuana risk. It is noteworthy that these sensation-related factors did not interfere or interact with the predictions that were hypothesized on the basis of identification and comment valence. Individual differences in sensation-seeking appeared to exert independent influence on PSA evaluations. Ultimately, however, sensation-seeking did not exert significant influence on the hypothesized effects of social identification with the anonymous peers who post messages online and the nature of their comments. It is not clear whether the YouTube environment itself alters the effects of PSA sensation value on viewers or if the presence of comments undermines MSV effects. Future research may wish to isolate the presence of videos on YouTube by preventing comments from being posted, in order to ascertain more clearly why these effects receded in this study as well as to establish a baseline response against which to compare the relative effects of positive versus negative user comments.

One concern that arises from these results is that there could be two potential interpretations of the identification and attitude patterns of participants toward ostensible YouTube commenters and comments. A *dynamic* interpretation, which guided the research, is that participants who identified more with commenters came to be influenced by commenters’ positive or negative comments, which affected participants’ evaluations of PSAs and perceptions about marijuana. An alternative, *static*

Table 1 Interaction Effects of Marijuana Use Recency \times YouTube Comment Valence on Social Identification with Commenters

Marijuana Use Recency	Pro-PSA Comments			Anti-PSA Comments		
	<i>M</i>	<i>SD</i>	<i>n</i>	<i>M</i>	<i>SD</i>	<i>n</i>
Never	4.15 ^{a,b}	0.98	23	3.68 ^{a,b}	0.80	19
More than 1 year ago	3.47 ^b	0.93	26	3.64 ^{a,b}	1.07	22
Between 1 year and 3 months ago	4.05 ^{a,b}	0.77	11	3.45 ^b	0.77	10
Less than 3 months ago	4.46 ^a	1.16	9	3.16 ^b	0.82	23

Note: Different superscript letters indicate significant differences, $p < .05$.

interpretation is that some participants' perceptions about marijuana were negative and their evaluations of the PSAs were positive, and those participants identified more strongly with commenters whose antimarijuana messages were consistent with the participants' existing attitudes; other participants favored marijuana and disliked the PSAs, and those individuals identified more with commenters whose messages were consistent with that position. Supplementary analyses mitigate this concern: Although subjects' history of marijuana use interacted with comment valence on subjects' identification with comment posters, $F(3, 144) = 3.68, p = .01$, the pattern of the means defied the "static" interpretation. We would expect those who used marijuana the most to identify the least with comments that were positive about the antimarijuana PSAs. Yet those individuals' average social identification with pro-PSA commenters was very great, and their identification with anti-PSA commenters was very small (Table 1). The reasons for these variations in identification are not clear and may be an interesting focus for future research. For the present purposes, the results lend support to the dynamic interpretation that identification drove attitudes, rather than vice versa.

While this study lends support to SIDE theory's general predictions that social identification with anonymous online peers increases social influence by those peers, it also raises a question about SIDE theory's robustness. Some variation in social identification scores was expected, and it reflects the approach in recent SIDE research (Tanis & Postmes, 2003). Nevertheless, SIDE theory predicts a more rigid view than this level of variability reflects. SIDE argues that if individuals and other online partners are visually anonymous, and if there is a salient social identity, then social identification is predicted to occur (which causes a variety of outcomes that are associated with social identification such as increased social influence, greater social attraction, and conformity to norms; Reicher et al., 1995). Indeed, a strength of SIDE is its parsimonious calculus: If X and if Y then Z. That said, the SIDE model's propositions do not articulate why variability in these relationships might occur when the preconditions are met. Although it stands to reason that some variability in identification may occur, and indeed, that variability correlates to social influence effects, one would expect more uniform differences than the present results, and

other SIDE studies, have reflected. This matter also deserves attention in future study and application of the SIDE model, the potential application of which is otherwise quite promising in many other Web 2.0 explorations (Walther, 2009).

This study indicates that the comments left by other users in a Web 2.0 application offer some intrusion in the intended effects of otherwise mass-mediated types of messages and that these effects are subject to systematic factors. For both the domains of health promotion and drug use deterrence, as well as for other domains of social influence, further research is warranted on how, by whom, and when such simultaneous messages may be facilitated, shaped, moderated, or blocked in terms of exacting the influence effects that societal agents endeavor to attempt using new media technology. Although the native YouTube environment is asynchronous, the variables and dynamics observed in this research may generalize to other, synchronous systems as well. Research is currently focusing on attributes of chat room discussions in an effort to extend other recent findings about PSAs and social electronic media (Alvaro et al., 2008; David et al., 2006).

An important limitation of this study is its use of exclusively positive or exclusively negative comments with each respective version of the PSA stimuli. No assertions are made here with regard to the environmental validity of those arrangements, and although the comments were actual YouTube message postings, the series of comments was manufactured for the purpose of the research. Interesting questions arise regarding whether different elements among a series of message postings on YouTube would affect evaluations and attitudes in the manner that the experimentally compiled comment lists did. Is there a conformity effect when all messages and commenters are unanimously valenced, as seen in Asch's (1955) research? Asch and Zuckier's (1984) research on impression formation, which used lists of attribute words, may have some bearing on this question: Does the proportion of positive to negative comments matter, or might one negative comment offset the effects of many positive comments? Does it matter which valence appears first in the list? Alternatively, does apparent interactivity—the appearance of messages that comment on a comment—draw readers' attention and involvement, or does it depend on the content? Does posting a comment in such a public setting affect one's attitude more so than simply completing an attitude questionnaire, as might be suggested by recent research on blogs and public commitments to one's performance (Gonzales & Hancock, 2008)? Each of these questions might stimulate informative research with implications not only for new technology effects but for extant research on impressions and on anchoring heuristics in judgments and attitudes (e.g., Tversky & Kahneman, 1974).

Rather than being a limitation, it may also be asked whether the analysis of PSA evaluations was superfluous because attitudes about marijuana may be an outcome of greater social and theoretical importance. Individuals are more likely to deride antidrug PSAs that they evaluate negatively than those they judge positively, even when the PSAs do not affect their drug attitudes (Southwell, 2001). Because YouTube offers a place to communicate PSA derision, its susceptibility to the articulation of viewers' PSA evaluations, which, as this research shows, may influence others in

turn, suggests that PSA evaluation is an important construct in and of itself. These limitations notwithstanding, the findings complement other recent studies showing that information senders' images are significantly affected by peers' comments in different Web 2.0 environments. For instance, perceptions of individuals who create Facebook profiles are influenced by the comments and pictures that one's "friends" post on one's profile (Walther et al., 2008), and peers' comments sometimes override an individual's own claims when they conflict on Facebook (Walther, Van Der Heide, Hamel, & Shulman, 2009). The presence of peers' comments renders substantial effects on judgments of central messages, as these studies show, which may be a defining feature of new, participatory media.

The research paradigm that helped shape the current investigation suggests that understanding the juxtaposition of multiple sources of influence in Web 2.0 systems may be approached by conceptualizing them in terms of familiar kinds of sources and applying theories and constructs about such sources to test their explanatory fit for novel phenomena (Walther et al., 2010). That paradigm leaves open what specific theories may be brought to bear on different facets of online influence, and depending on the setting or phenomenon of interest, different constructs and theories may become more useful than others. Even in examining the effects of online PSAs and user comments, a number of other constructs might be extremely promising, such as credibility and attractiveness of sources (see for review Harrington et al., 2006), attitude toward the ad (e.g., Nan, 2008), perceptions of reference groups' public opinion or perceptions of bias (e.g., Glynn & Park, 1997; Smith & Boster, 2009), and health advocacy reception amidst "clutter" or competitive interference of multiple persuasive media messages (Duffy & Thorson, 2009; Kent & Allen, 1993). Although many theories and constructs may pertain, this research selected two that seemed to offer reasonable starting places given one theory's focus on the influence of visually anonymous peers and another's focus on PSAs in particular. Subsequent research should evaluate the effectiveness of these choices by testing alternative theoretical models for good explanatory fit, empirical utility, and integrative potential.

Altogether, these findings offer potentially useful implications at three levels. At the paradigmatic level, this study and related ones reinforce the utility of Walther and colleagues' (2010) proposal that new, participatory technologies can be understood by framing their contents as a juxtaposition of multiple influence sources. By classifying these sources conventionally, such as institutional sources versus peers, theories from independent domains can be tested for their explanatory fit and illumination.

At the theoretical level, certain extensions to SIDE theory are apparent in its application to YouTube commenters, while questions arise with regard to what the source of variance is in participants' identification; the level of variation in identification, in conditions under which the theory would predict more uniform effects, deserves further exploration. Likewise, the findings may limit the scope of activation theory, in that MSV and sensation-seeking factors did not contribute as meaningfully to participants' evaluations and attitudes in the present context at least in the face of a novel channel and the presence of user comments.

Finally, at the practical level, the current results suggest that there may indeed be a time and place when limiting users' ability to contribute in participatory Web 2.0 systems mitigates unintended influence, at least when comments are derisive, as was the case when the ONDCP terminated the user participation aspect on its YouTube PSA presentations. These options pertain to all users, not just the U.S. government. When uploading a video to YouTube, one is prompted to choose how much commenting the system will permit and by whom, and whoever uploads the video can change these settings at any time; choices include "allow comments automatically/allow friends' comments automatically, all others with approval only/allow all comments with approval/don't allow comments" (YouTube Help, 2010). Moreover, there are other video-sharing sites such as SchoolTube.com where videos can be posted (subject to approval) and user-generated comments are restricted to choices from a predetermined list, including "awesome," "not so good," "I give it an 'A'," and others.

Elsewhere, control over the kinds of comments that appear on YouTube (and other Web 2.0 systems) has been harnessed in order to protect and promote the public relations value of one's Web presence. For example, the Israel Defense Forces launched its own YouTube "channel" during the Gaza war in 2008–2009 (Socol, 2008) to present its views of the controversial war. Elsewhere, when users suspect or discover that individuals are pretending to be naïve users and posting comments to further their own vested interests about a topic, or "sock-puppeting—the act of creating a fake online identity to praise, defend or create the illusion of support for one's self, allies or company" (Stone & Richtel, 2007), the strategy backfires.

Debates may ensue about whether and when government-sponsored messages disseminated through privately-owned systems should be protected from contrarian free speech that these same systems facilitate. Others may argue that a government's expensive efforts to affect drug-related attitudes should not be knowingly wasted or provide vehicles for counterinfluence. Attempting to settle this debate is beyond the scope of the present research, the results of which nevertheless have potentially important implications for such policy concerns, providing empirical and theoretical understandings of the nature of influence in multivalenced online communication systems, on which such debates may be grounded.

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Notes

- 1 Previous research using this measure has also encountered reliability concerns. While social identification with a group is associated with assessments of similarity to its

members, homophily is a very related construct, describing the degree of perceived similarity a receiver ascribes to a message source. A measure of participants' perceived homophily with YouTube commenters was also administered. McCroskey, Richmond, and Daly's (1975) 10-item bipolar semantic differential measure of homophily assesses individuals' perceptions that others are "Similar to me/Different from me," have "Concerns like mine/Concerns unlike mine" and "Experience like me/Experience unlike me," and so forth, and these measures have been applied successfully in previous CMC research (e.g., Walther, Slovacek, & Tidwell, 2001; Wang et al., 2008). Indeed, Lee (2006) measured social identification employing a measure that assessed the extent that CMC users "felt their partners shared their beliefs and thought like themselves" (p. 428) using Likert-type items including "'similar to me,' 'think like me,' and 'share my belief'" (p. 432). Cronbach's α reliability for homophily in this study was .88. Analyses revealed a significant positive association between homophily and social identification, $r(150) = .588, p < .01$. While only social identification scores are reported in this study, parallel analyses reflected identical results using homophily scores.

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YouTube上对反大麻公益广告的在线评论对感知的影响

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【摘要】

网络媒体经常在同一平台中呈现多重因素的影响，例如大众媒体和同龄人的影响。如果人们与匿名的同龄人或与他们没有直接接触的人产生认同感，便易受到该群体的社会影响。本研究探讨 YouTube 上反大麻公益广告 (PSA) 与观众对这些视频的相关评论帖子之间的相互作用。结果表明，支持或嘲笑评论影响对 PSA 的评价，但未影响对吸食大麻的态度，然而，身份认同和正负面评论之间的相互作用既影响对 PSA 的评价和也影响对吸食大麻的态度。之前与对 PSA 评价相关的其他因素如信息强度和观众的感官刺激倾向并未与假设的因素互相作用。

L'influence des commentaires en ligne sur les perceptions des messages d'intérêt public anti-marijuana sur YouTube

Joseph B. Walther, David DeAndrea, Jinsuk Kim & James C. Anthony

Les médias web présentent souvent plusieurs sources d'influence, comme les médias de masse et les pairs, dans une seule et même interface. Quand des individus s'identifient à des pairs qui sont visuellement anonymes et avec lesquels ils n'interagissent pas directement, ces individus devraient être sensibles à l'influence sociale de ces pairs. Cette étude a examiné l'interaction entre, d'une part, des vidéos d'intérêt public contre la marijuana mises sur YouTube et des commentaires adjacents publiés par d'autres personnes à propos de ces vidéos. Les résultats montrent que des commentaires à l'appui ou en dérision des vidéos influençaient l'évaluation du message d'intérêt public mais n'affectaient pas les attitudes envers la marijuana. De son côté, l'effet d'interaction entre l'identification et la valence des commentaires a influencé tant les évaluations du message que les attitudes envers la marijuana. D'autres facteurs précédemment liés à l'évaluation des messages d'intérêt public, comme la force du message et la recherche de sensations de la part de la personne qui les regarde, n'ont pas interagi avec les facteurs de l'hypothèse.

Der Einfluss von Onlinekommentaren auf die Wahrnehmung von Anti-Marihuana-Public Service Announcements (PSA) auf YouTube

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Webbasierte Medien präsentieren häufig verschiedene Einflussquellen wie beispielsweise Massenmedien und Peers an einer Schnittstelle. Wenn sich Personen mit Peers identifizieren, die visuell anonym sind und mit denen sie nicht direkt interagieren können, sollten sie empfänglicher für den Einfluss dieser Gruppe sein. In dieser Studie untersuchen wir das Zusammenspiel zwischen Public Service Announcements-Videos auf YouTube zum Thema Marihuanagebrauch und den dazugehörigen Kommentaren von anderen Nutzern zu diesen Videos. Die Ergebnisse zeigen, dass bestätigende oder ablehnende Kommentare zwar die Bewertung der PSA beeinflussen, nicht aber die Einstellung zu Marihuana. Der Interaktionseffekt zwischen Identifikation und der Valenz des Kommentars beeinflusst allerdings sowohl die Bewertung der PSA als auch die Einstellungen zu Marihuana. Andere Faktoren wie Botschaftsstärke und Sensationslust des Rezipienten, die bislang bei der Bewertung von PSA betrachtet wurden, interagierten nicht mit den betrachteten Faktoren.

유튜브의 반 마리화나 대중서비스 선언 개념에서 온라인 코멘트의 영향력

Joseph B. Walther, David DeAndrea, Jinsuk Kim, & James C. Anthony

요약

웹에 기초한 미디어는 종종 다양한 영향력의 재원을 표현한다. 개인들이 시각적으로 익명인 동료들과 동일시할때, 그리고 그들이 자신들과 직접적으로는 상호작용하지 않을때, 그들은 그 집단으로부터 사회적 영향을 받기 쉽다. 본 연구는 유튜브의 반 마리화나 대중서비스 선언 (PSA)과 이들 비디오들에 관한 다른 시청자들로부터의 연관된 메시지 포스팅 사이의 상호작용을 연구한 것이다. 결과들은 지지적이거나 조롱적인 코멘트들이 PSA 평가들에는 영향을 주나, 반 마리화나 태도들에 대해서는 그렇지 않다는 것을 보여주고 있다. 메시지 강도나 수용자의 감정과 같이 이전부터 PSA 평가에 관계있는 다른 요소들은 가정된 요소들과 상호작용하지 않았다.

La Influencia de los Comentarios Online sobre las Percepciones de los Anuncios de Servicios Públicos Anti-Marihuana en YouTube

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Resumen

Los medios basados en la Web presentan a menudo fuentes de influencia múltiples, tales como los medios masivos y los pares, dentro de 1 interfaz. Cuando los individuos se identifican con sus pares quienes son anónimos visualmente y con quien no interactúan directamente, ellos deberían ser susceptibles a la influencia social de ese grupo. Este estudio examinó la interacción entre los videos de los anuncios de servicios públicos anti-marihuana en el medio ambiente de YouTube y los mensajes adyacentes escritos por otros televidentes de esos videos. Los resultados muestran que los comentarios de apoyo o de desdén afectaron las evaluaciones de los PSA pero no las actitudes hacia la marihuana, mientras que el efecto de interacción de la identificación y la valencia de los comentarios afectaron a las evaluaciones de los PSA y las actitudes hacia la marihuana. Otros factores previamente relacionados con la evaluación de los PSA tales como la fortaleza del mensaje y la percepción de los buscadores de sensaciones no interactuaron con los factores hipotetizados.