The Effects of Entertainment-Education and Prosocial Media on Attitudes and Behaviors

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It is now easier than ever to produce audio and video of a quality that 10 years ago would only have been possible in state-of-the-art facilities. Likewise, audio and video that previously could only be transferred on bulky storage media can now be passed wirelessly from smartphone to smartphone or physically on storage media that fit in the palm of one’s hand. As new information technologies make media increasingly accessible around the world, development practitioners have invested significant resources in producing and distributing new content aimed at catalyzing behavior change.

One particular form of media meant to catalyze behavior change is “edutainment” programming. Due to its popularity in prosocial media interventions, the bulk of this literature review concerns edutainment programs. Edutainment is “the process of purposely designing and implementing a media message to both entertain and educate, in order to increase audience members’ knowledge about an issue, create favorable attitudes, shift social norms, and change the overt behavior of individuals and communities” (Singhal and Rogers, 2004, p. 5). In short, “edutainment” is entertaining television with educational and prosocial goals. It typically uses dramatic narratives to emotionally engage viewers and shows characters relatable to the viewers being rewarded for undertaking prosocial behavior.¹

How successful have attempts to use prosocial broadcast or distributed media to affect individual knowledge, attitudes, and behaviors been? Past research about media effects agrees that exposure to media can increase viewer’s informational knowledge and perceptions of social norms but is inconclusive about the ability of media interventions to affect attitudes -- some interventions embedded in media influence attitudes, while others do not. By reviewing the extant research, we argue that media plays a primarily informational role and faces challenges when it comes to persuading individuals about what they should fundamentally value. Targeted media can affect informational knowledge, perceptions of social norms, and beliefs about how best to pursue goals related to values that the target already has. Targeted media is less capable of persuading viewers to adopt new values or to change deeply held attitudes. This limitation is consistent with research in psychology about the stability of values (Schwartz and

¹ “Edutainment” often employs the Sabido Methodology, a communication strategy developed by Miguel Sabido (1981) in his Mexican telenovelas. The Sabido Methodology uses three types of characters to influence the attitudes and behaviors of its viewers: (1) a positive character who models desirable behaviors and is consistently rewarded for those behaviors; (2) a negative character who models undesirable behaviors and is consistently punished for those behaviors; and (3) a transitional character who moves from undesirable behavior to desirable behavior over the course of the program.
Bilsky 1987) and “important” or “central” attitudes (Rokeach 1960; Converse 1970). Media-influenced behavior change, therefore, primarily arises either from removing social constraints on a behavior or from individuals learning about new ways to achieve old goals, as compared to behavior change that originates in the adoption of new goals.

We will review a set of studies related to media interventions aimed at bringing about prosocial individual behavior change (i.e., changes that either reduce negative externalities associated with individual behavior or that bring about positive externalities); we focus in particular on edutainment studies from developing countries, but also include other media interventions that corroborate and clarify lessons learned from studies about prosocial media. We group the studies according to the goals of the programming: (1) factual information transfer, (2) transfer of knowledge about social norms, and (3) persuasive personal attitude or behavioral change. We then summarize the state of the literature and important open questions that remain unaddressed in the current literature. Notably, few studies analyze the effect of edutainment programs on political attitudes such as civic engagement. Given this lack of studies about edutainment and civic engagement, we review the more general literature about links between media consumption and civic engagement. Finally, we talk about the applications of our review for programming in the domain of countering / preventing violent extremism.

**Prosocial Media and Information**

An abundance of evidence suggests that media can effectively communicate information to individuals. A set of studies from the 1950s and 1960s established that “farm radio forums” succeeded in transferring agricultural knowledge to farmers in contexts as diverse as Ghana, India, Benin, and Thailand (Mathur and Neurath 1959; Abell 1968; Jain 1969; Purnasiri and Griffin 1976; Anyanwu 1978; Kivlin 1968). The programs were not truly “edutainment” but are an early example of how media interventions influence informational outcomes. Studies from the 1970s and 1980s showed that educational radio programs could promote knowledge of mathematics (Galda 1984; Ginsburg and Arias-Goding 1984), health (Byram and Kidd 1983; Cooke and Romweber 1977), grammar (Ginsburg and Arias-Goding 1984), civics (Byram et al 1980), and other informational outcomes (see Nwaerondu and Thompson 1987 for a full review). More recent studies have shown that news and entertainment programs increase political knowledge (Baum and Jamison 2006; Mie Kim and Vishak 2008; Barabas and Jerit 2009), information about health topics like HIV/AIDS (Banerjee et al. 2017) and when to seek medical care (Sarrassat 2015), financial literacy (Berg and Zia 2017), and knowledge about government programs (Trujillo and Paluck 2011; Ravallion et al. 2015).

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2 It is worth highlighting that in these studies farmers listened to the radio programs in groups.

3 This study reports the results of an RCT evaluating an NGO health-media intervention after 20 months. The study only has 14 total units of analysis, with 7 treatment areas and 7 control areas, so the study has very low power to distinguish a result from a null result. Consequently, 20/23 of their hypothesis tests reject the idea that the treatment group and control group are different. The statistical methods used in this study are also suspect, as the authors do not correct for testing multiple hypotheses of their 23 tests or use randomization inference to create a true p-value with only 14 units.
In sum, a variety of studies, spanning diverse subject areas and using both radio and television as the transfer media, show that broadcast media can effectively communicate information to listeners and viewers.

**Prosocial Media and Knowledge of Social Norms**

In addition to successfully communicating factual information, existing studies suggest that edutainment media interventions can be successful in changing how individuals understand societal attitudes about particular topics. Listeners and viewers learn things about the way in which their fellow citizens or community members think from media. The type of information being transferred in these studies has ranged from what political issues are seen as important (Iyengar and Kinder 1987) to which attitudes are seen as socially desirable (Paluck 2009; Bilali et al. 2016).

The earliest experimental media study to show that media changes viewers’ perceptions about society is Iyengar and Kinder’s (1987) landmark study *News That Matters* in the United States. The authors edit nightly news broadcasts to contain one additional segment per week on a specific issue; they show that this increase in the number of news stories on that issue increases viewers’ perceptions that the issue is politically important. The increase in news stories, however, does not necessarily affect viewers’ personal attitudes about the issue. The study provides evidence that news media can influence what viewers think about but not necessarily how they think about it.

Similarly, a study of a radio drama in Rwanda demonstrated the ability of the broadcasts to change listeners’ perceptions of social norms with respect to intermarriage, open dissent, trust, empathy, cooperation, and trauma healing (Paluck 2009). The study, however, did not find evidence that the program changed listeners’ personal beliefs about any of these topics. Bleck and Michelitch (2017) report a similar finding from non-edutainment media in Mali. In a study that coincided with the brief period of military rule after the March 2012 coup, they show that pro-government radio broadcasts changed perceptions of social norms around ethnic minorities and the importance of national identity but that the broadcasts did not increase approval for or help legitimize the military junta. In an example from Nigeria that more approaches the typical form of edutainment media, Blair et al. (2017) find that scenes in a Nollywood film of people reporting corruption increased viewers’ beliefs that corruption was widespread and that anger about corruption was widespread. The study, however, does not measure individual attitudes. Bilali et al. (2016), though not an experimental study, use propensity score matching to replicate most of the social norm results from Paluck (2009) with a trauma-healing drama radio program in Burundi. The program did not change norms around expressing dissent, which the authors attribute to different social contexts in Burundi and Rwanda, but it did affect some personal attitudes about ingroup superiority and victimhood.

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*The *News That Matters* study used normal news broadcasts and not edutainment programming, which is the main focus of this review. We include it because it is one of the first experimental interventions to show how media influences social and political perceptions.*
That broadcast media can change perceptions of what the prevalent beliefs in society are and what current social norms are once again suggests that media can have strong informational effects. But the existing evidence suggests that those exposed to the media do not always use this information to update their own personal beliefs.

**Prosocial Media and Personal Attitudes and Behaviors**

Whereas evidence is strong that media can provide viewers with factual information and alter their perceptions of social norms, the evidence that media changes personal attitudes is ambiguous and suggests heterogeneity in the types of attitude that edutainment media can change. Existing evidence also suggests that media interventions influence behavior, even in the absence of observable or identifiable attitudinal change.\(^5\)

The previous section reviewed some studies that find null results with regard to attitudinal change. Some other studies have yielded more positive evidence, especially with regards to behavioral change. The attitudes and behaviors that media interventions successfully change tend to be those attitudes and behaviors most closely associated with people’s current values or attitudes and behaviors where the adoption *unilaterally* benefits the respondent\(^6\). Media interventions do not seem to be effective at persuading people to adopt new values or to adopt attitudes and behaviors that are only beneficial if they are also adopted by other people in the respondent’s social environment. This suggests that media serves a primarily informational role, not a persuasive role. As LaFerrara (2015) notes in her review of prosocial media and socioeconomic outcomes, media can change attitudes and behavior through providing information or through persuading people to change their preferences. Our interpretation of the results reviewed so far is that media primarily affects attitudes and behaviors through its informational role, not through its persuasion role.

Most of the successful treatment effects on personal attitudes concern attitudes related to health, personal economic outcomes, and women’s status among women. In one of the earliest such studies, Rogers et al. (2000) show an increase in adoption of safe-sex practices and attitudes in areas where an edutainment radio intervention was randomly administered. Respondents in treatment areas were more approving of contraceptive use and more likely to believe that they could control their family size. Respondents’ desired number of children, however, did not change, and only some of the treatment sites showed evidence of changed attitudes about the ideal age for a woman to marry. It is unclear why some attitudes changed but others did not. One important prosocial behaviors related to safe sex did change: respondents in treated areas reported much higher usage of contraception (Vaughan et al.\(^6\)).

\(^5\) Behavior may be changing because some other attitude -- that the studies have not measured -- has changed.

\(^6\) Benefits will primarily come from positive behavioral change, but attitudinal change along can also benefit the respondent. For example, feelings of efficacy may benefit a respondent without any noticeable behavioral change. Similarly, purely attitudinal costs may prevent a respondent from adopting new attitudes or behaviors. For example, the psychological discomfort of cognitive dissonance may prevent a prejudiced individual from adopting tolerant views towards an outgroup. If the individual’s self-worth is partly defined by ingroup superiority, admitting equality with an outgroup could be psychologically costly.
A recent study by Banerjee et al. (2017) also reports behavioral change amidst a lack of attitude change about health topics. The authors invite people in randomly selected Nigerian neighborhoods to a screening of a TV drama that focuses on HIV/AIDS. Treated subjects are more likely to be tested for HIV, and treated women are less likely to test positive for chlamydia. These behavioral results are significant both in self-reports and in “objective” measures of testing at health camps. In addition, treated subjects report increased adoption of a range of safe-sex behaviors and increased knowledge about HIV even several months after the screening. On the other hand, the authors find no evidence of changes to an index of attitudes about HIV or attitudes about risky sex. The screening also failed to increase condom use. Again, it is unclear why some attitudes and behaviors change but others do not. Since attitude and behavior change result from an interaction between the media intervention, an individual’s prior personal attitudes, and reigning social norms, it is likely that some messages will be accepted by individuals and/or reinforced by the subject’s social environment, while other messages will be resisted and/or countered by the subject’s social environment.

We also can observe behavioral changes in sexual activities in aggregate-level studies. In a national-level study in Turkey that analyzed aggregate behavior, Kincaid et al. (1993) show that a family-planning media campaign, including edutainment programming, significantly increased usage of contraception among Turkish women. Studying the effects of exposure to the U.S. television program 16 and Pregnant, Kearney and Levine (2015) find that there is an association between viewing levels of the program and a reduction in teen pregnancy rates across geographic areas. The effect of edutainment on health outcomes extends beyond family-planning activities. In India, Bannerjee et al. (2015) use an edutainment movie highlighting the health benefits of iron-fortified salt to drastically increase its uptake.

Evidence for edutainment programs to affect attitudes and behaviors related to personal economic outcomes is strong. In a recent study about financial literacy, Berg and Zia (2017) randomly encourage subjects in South Africa to watch a program with a financial literacy subplot or a placebo program that aired at the same time as the treatment program. The study shows that subjects became less positive about rent-to-own agreements after watching a drama in which characters get into financial trouble because of rent-to-own agreements. The attitude and knowledge change is very specific, and there is no spillover to general financial attitudes. The authors also measure effects over time and find that many, although not all, of the effects endured for months after the intervention storyline ended.

Tanguy et al. (2014) and Bjorvatn et al. (2015) also study attitudes related to personal economics. Tanguy et al. showed 15 minutes documentaries featuring people of similar background to a target audience in rural communities in Ethiopia. They demonstrate that these documentaries affect behavioral, attitudinal, and psychological outcomes like locus of control (feeling that you have control over life outcomes), even six months after the documentaries aired. Bjorvatn et al. (2015) randomly encouraged secondary school students to watch an edutainment show promoting entrepreneurialism or placebo content. The program featured successful youth small business owners in Tanzania competing for the chance to win over
$3,000 for their business. The program increased the aspirations and ambitions of viewers, and there were more new business start-ups among viewers in the treatment group than those in the control group. These increased aspirations and ambitions can extend to the children of media consumers, as shown in the Keefer and Khemani (2011) study of a community radio show that inspired parents to buy books for their children, increasing child literacy. Media programs have also encouraged the literacy of viewers and listeners. A radio program in Mali encouraged literacy by reading aloud and then answering “letters to the editor” of a local newspaper (Ouane 1982), and a television program in Peru encouraged literacy with a dramatic storyline showing the main character bettering her life through adult literacy classes (Singhal et al. 1995).

Several studies demonstrate that media can encourage women’s empowerment among women and influence the within-family behavior of women. Jensen and Oster (2009) use a quasi-experiment to show that access to cable television, which features drama programs that present small urban families and empowered women, alters attitudes of women in rural India. Relative to areas without cable television, women in areas newly introduced to cable television report decreased preferences for sons and a reduction in the number of instances for which the women report that domestic violence is acceptable. These women also report increased decision-making power in the home and lower fertility, suggesting that there are behavioral effects that build on the attitudinal effects of the program. Cheung (2012) reports very similar results using an analogous design about edutainment radio exposure in Cambodia. Cheung’s (2012) study exploits exogenous variation in which villages receive the signal of an edutainment radio station and finds that women in villages that receive the signal report more decision-making power than women in non-exposed villages and possibly that the radio broadcasts decreased the perceived acceptability of domestic violence and decreased son preference among women. And in two complementary studies, Chong and La Ferrara (2009) and La Ferrara et al. (2012) use a similar design to show the effects of access to soap operas in Brazil. La Ferrara et al. (2012) show that exposure to soap operas that show small family sizes are associated with a decrease in women’s fertility, and Chong and La Ferrara (2009) show that exposure to the same soap operas are associated with an increase in divorce rates. Results about women’s empowerment are also observed qualitatively. Papa et al. (2000) observe that an edutainment radio program encouraged an Indian village to sign pledges against dowries, against child marriage, and for the education of girls.

There are a limited number of studies about the role of edutainment media in changing political attitudes (LaFerrara 2016), and edutainment media seems more constrained for these outcomes. Paluck (2009) and Paluck and Green (2009), which report the results of a radio intervention field experiment in Rwanda, exemplify this conclusion. As discussed earlier, the radio intervention changed listeners’ perceptions of several social norms but had no effect on

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7 The treatment may also have yielded some undesired consequences, as the students encouraged to watch the treatment show displayed weaker school performance than other students and were less likely to continue schooling two years later, having eschewed education for business entrepreneurship.
the personal attitudes of respondents, such as their attitudes about the outgroup. Bilali et al. (2016) replicates the “social norm” results, save for changes in norms around dissent with authority. But Bilali et al. (2016) find that the program did improve some personal attitudes, including decreased belief in their ingroup superiority and that the outgroup is responsible for problems in Burundi. In another study of an edutainment radio program designed improve intergroup relations, Bilali and Vollhardt (2012) find that priming the respondents to think about the radio program increases perspective-taking and inclusive victimhood while decreasing mistrust between ethnic groups. The priming experiment shows that the radio program successfully put these ideas in respondents’ heads, but doesn’t show that these ideas are used in other circumstances.

In a lab-in-the-field study, Trujillo and Paluck (2011) show that a Spanish-language soap opera in which a character learns about the benefits of participating in the U.S. Census and begins working for the Census succeeded in dispelling incorrect beliefs about the U.S. census and improving perceptions of the U.S. government among Latinos in the United States. Notably, this intervention did not improve perceptions of subjects in Arizona, who had been targeted by anti-Latino legislation SB 1070, and therefore were likely to resist updating their attitudes in a pro-government direction. The lack of an effect for subjects with direct negative experiences with the U.S. government suggests that edutainment programs may not affect strongly held attitudes and that viewers devalue content that contradicts their direct experiences.

Aldrich (2012) evaluates the effects of countering violent extremism (CVE) programming in three West African countries and finds that listening to those programs is associated with participating more frequently in civic activities but had no measurable association with attitudes about violence or the imposition of strict Islamic law. In their study of a film intervention that shows characters reporting corrupt public officials, Blair et al. (2017) also find increased civic engagement in the short-term: subjects were more willing to report corruption.

Some media interventions may cause backlash effects and worsen the attitudes that they seek to improve. Paluck (2010) reports that a radio talk show after a soap opera intended to increase inter-ethnic tolerance succeeded in encouraging listeners to discuss the soap opera more frequently but actually made listeners who heard the talk show more intolerant, more mindful of grievances, and less likely to aid disliked community members. Bilali et al. (2017) also find that an edutainment media intervention in Rwanda designed to improve collective action reduces tolerance towards different peoples and viewpoints and increases social distance between groups.

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8 Although not media interventions and so not included in this review, numerous lab studies show that extended or vicarious contact improves outgroup attitudes (Vezzali et al. 2014 for a review). A meta-study about the lab effects of Sesame Street by Mares and Pan (2013) also indicates that viewing Sesame Street improves the outgroup attitudes of children. A recent study by Bowers and Grady (2017) tests these findings about outgroup attitudes in the field, but final results are not currently available for that study.
Summary of Evidence for Attitudinal and Behavioral Change
This review of the effects of prosocial media on attitudinal change shows the complex nature of attitude change. In general, it seems that media effectively changes attitudes tightly tied to the media intervention when the attitude change provides some private benefit. The most robust findings concern attitudes about women’s status among women, attitudes that should improve viewers’ material well being, such as financial responsibility and financial entrepreneurship, and possibly certain health attitudes that help viewers avoid sexually transmitted diseases. Only a very limited number of studies concern political or social outcomes such as outgroup attitudes or civic engagement. These studies provide some preliminary support for edutainment media affecting attitudes towards the government or civic engagement but evidence against the idea that media interventions can improve outgroup attitudes or decreases the acceptance of violence.

These attitudinal media effects seem primarily due to information about ways that viewers can achieve their goals, rather than media persuading viewers to adopt new goals. Most or all of the media effects on attitudes persuaded viewers to adopt attitudes that are in the viewer’s self-interest: doing something that will promote financial well-being, health, or a sense of self-efficacy. Even the political outcomes can be viewed in this light, as the Trujillo and Paluck (2011) article used a media clip that showed Latinos how answering the U.S. Census can increase government resource allocation to Latinos. Indeed, their intervention did not affect subjects who would not reasonably think that interacting with the government could be in their interest due to strongly negative prior interactions with the government. It remains to be seen whether or not prosocial media can increase broad prosocial attitudes, such as increased outgroup tolerance, increased civic engagement where the material benefits are not immediately apparent, or decreased acceptability of violence.

The behavioral effects of prosocial media reported here show that there is potential for media interventions to encourage prosocial behaviors. Many studies cited throughout this review show behavioral changes even in the absence of attitudinal changes. From these studies we cannot determine if the absence of measured attitudinal change is because some unmeasured attitude changed or because behavior change occurs without any underlying attitudinal change. As with the take-away point for the effect of prosocial media on attitudes, however, these behavioral changes tend to be behavioral changes towards things that people already want. It remains to be seen whether prosocial media has a broader scope such that it can foster prosocial behaviors that are not in the self-interest of the viewer.

Open Questions and Limitations of Current Research

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9 There are theories that posit behavioral change in the absence of attitudinal change. For example, if behavior is a function of a person and her environment (Lewin 1951), then changing environmental constraints can change behavior even in the absence of personal attitudinal change. There are also a number of theories in psychology and neuroscience that posit a lack of connection between conscious attitudes and behavior (see Gilbert (2006) for a popular review from psychology and Gazzaniga (2015) for a popular review from neuroscience).
Though we have strong evidence that prosocial media can affect attitudes and behavior about health, finances, and efficacy, it remains to be seen whether the effects of prosocial media are limited to attitudes and behaviors in the self-interest of the viewer or whether media can encourage a wide variety of altruistic attitudes and behaviors. The few studies that examine more altruistic attitudes and behaviors provide mixed evidence. Blair et al. (2017) show that a media program can encourage short-term corruption reporting, which is not in anyone’s immediate self-interest and may even harm reporters if the person being reported is a powerful person in the community. However, Paluck shows no effect (2009) or negative effects (2010) of media on outgroup attitudes, and Trujillo and Paluck (2011) show no effect on attitudes towards the government for the subset of respondents who should have the strongest and most well-formed attitudes. Aldrich (2012) finds that listening to CVE programming increases civic participation but leaves attitudes about violence unchanged.

There is also a large gap in the current literature. Economic outcomes are well-studied, and show that prosocial media is capable of convincing people to do what is in their economic interest. But there exist very few studies about political attitudes and civic norms, so it remains unknown if media can foster civic values and build awareness about political institutions and participation (LaFerrara 2016).

**General Linkages between Media Exposure and Civic Engagement**

Though few prosocial media interventions have directly targeted forms of civic engagement like voting or related indicators like government trust, more general studies of the relationship between media and behavior have looked at civic engagement outcomes. In this section, we review the literature about media and civic engagement that is most relevant for entertainment programming. We focus on studies about exposure to television generally, exposure to entertainment news programs, and exposure to hard news and political campaign material.

The most famous study of media’s effect of civic engagement is probably Robert Putnam’s book *Bowling Alone* (2000). In it he details the startling decline of “social capital” in the United States -- an important component of social capital is civic engagement. His analysis attributes a very large proportion of the decline in civic engagement to electronic entertainment, especially television. Electronic entertainment “crowds out” civic and social behavior. The analysis assigns blame to television in the aggregate, not specific programs. Individual programs can have remarkably positive effects, as the above literature review demonstrates.

Many studies show that exposure to politically relevant programs increase citizen competency and political participation (Neuman et al. 1992; Dalton 2002; De Vreese and Boomgarden 2006). Even politically relevant programs that focus primarily on entertainment rather than news provide political benefits to viewers. Baum and Jamison (2006) show that “soft news” like daytime talk shows helps politically inattentive individuals vote competently, and Hoffman and Young (2011) show that exposure to political comedy shows increases political participation by increasing the perceived political efficacy of viewers. Baumgartner & Morris (2006) also find that viewers of *The Daily Show* report increased political efficacy, but those authors also report a
dark side to comedy news: *The Daily Show* viewers also hold more negative opinions about candidates, the electoral system, and news media generally. Mutz and Reeves (2005) report a similarly negative consequence of certain news-coverage styles in an experimental study. They show that citizens are more attracted to news with uncivil discourse and that exposure to that discourse decreases political trust.

Another line of research concerns political persuasion via media exposure. Zaller’s (1996) study of elections in the United States shows that voters with a medium amount of political awareness, as opposed to high or low awareness, were most susceptible to political persuasion via media campaigns. Low information voters do not receive media messages, and high information voters know how to argue against media messages they disagree with, but medium information voters both receive the message and lack the tools to argue against it.10 Two other noteworthy studies also suggest that media effectively persuades voters to change their voting choices. Gerber et al. (2009) randomly assigns Virginians to receive a free *Washington Post* or *Washington Times* subscription and find that people who receive either paper are more likely to vote for the Democrat in the upcoming election. Ladd and Lenz (2009) exploit a communication shift in which several British newspapers switched their party endorsement to Labour and show that between 10% and 25% of readers change their vote based on the endorsement change. Both of these studies suggest a strong persuasive effect of print media.

Though some studies show a strong persuasive effect of media, research suggests that persuasive effects of media are extremely short-term. Gerber et al. (2011) conclude that gubernatorial radio ads have a strong but ephemeral effect on voting preferences, while Mitchell (2012) finds that new information received from the media “rapidly displaces” old information. Hill et al. (2013) also show that media exposure primarily produces large short-term persuasion effects and that the short-term effects play a significant role in influencing an individual’s vote choice. They also find small long-term persuasion effects occur for repeated communication -- in line with the Gerber et al. (2009) study and the Ladd and Lenz (2009) study about the effects of newspaper subscriptions. Taken together, these studies suggest that the effects of individual media content are principally priming and accessibility so that media messages are salient for a short period of time, but that long-term persuasion through media does occur due to repeated exposure.

Several studies analyze the effects of negative media campaigns on turnout, finding contrasting results that negative campaign ads either increase (Goldstein and Freedman 2002) or decrease (Ansolabehere, Iyengar, and Simon 1999) turnout. Stevens et al. (2008) provide a nuanced resolution to these contradictory findings, showing that negative ads can increase or decrease turnout depending on circumstances and the attributes of the individual exposed to negative advertising. The most consequential effect of negative ads, in their view, is that negative ads

10 In the context of an edutainment campaign aimed at improving civic engagement, we might also expect to observe that the campaign has the largest effects among those people who care enough about the topic to be motivated by the message but who do not care so much that their opinions are already strongly formed.
change the composition of the electorate such that people who see the other side’s perspective vote less. Mutz (2006) comes to the same conclusion about cross-cutting political exposure regarding a wide range of civic activities, highlighting the tension between deliberative and participatory democracy. These studies show that a side-effect of exposure to cross-cutting information is a decline in certain types of political participation and civic engagement as people become less certain that their preferences are the correct preferences and therefore less willing to act on them.

**Implications for CVE Programming**

Countering violent extremism (CVE) programs typically seek to impact a broad swath of attitudes, from civic engagement to intergroup tolerance to attitudes towards violence. The existing literature reviewed here on media interventions to affect attitude change has many implications for CVE media programs.

The major take-away for attitude and behavior change is that the edutainment media content should closely link the desired attitude change with the listener’s existing values structure, including the acknowledgment that individual’s value their own self-interest -- most existing studies with positive results look at interventions that affect attitudes and behaviors that confer a private benefit to the individual. This does not mean that prosocial attitudes and behaviors cannot be encouraged via edutainment (such as the corruption reporting in Blair et al. 2017), but it means that the program’s content should link prosocial attitudes and behaviors with other things that the listener values. For example, to improve civic engagement, the edutainment program should show how civic engagement can lead to increased government resource allocation or inform the government about existing social problems and encourage the government to solve those problems. These benefits should be outcomes that the desired behavior, civic engagement, can reasonably achieve. If the observed connection between attitudes/behaviors and outcomes is contrary to what listeners experience in their daily lives, they will not adopt the desired attitudes/behaviors (Bandura 1971; Gopnik et al. 2014). For example, if listeners to a civic engagement program frequently observe that the government ignores citizens’ petitions about social problems, listeners are less likely to become civically engaged because their reality contradicts what they learn from the radio program.11

A program must work within the constraints of society not only when deciding what benefits to connect with the desired prosocial behavior, but also when deciding which attitudes to attempt to change. In some cases attitude change will not lead to meaningful behavioral change due to social constraints. An edutainment program could convince someone that paying bribes is wrong, but if paying a bribe is the only way for the listener to receive a desired service, they will continue paying the bribe because their behavior is socially constrained. The program should also target attitudes that can be easily linked to benefits for the individual, both material and psychological. Intergroup tolerance and nonviolence are a tough sell because they do not

11 The characters in the program must also engage in the desired behavior so that listeners have a behavioral example to imitate.
unilaterally benefit the individual and may involve material or psychological costs. Intergroup
tolerance could impose social sanctioning on an individual whose social group is intolerant and
could impose cognitive dissonance on an individual whose social identity and self-esteem are
partly derived from their group affiliation.

In the case where individual attitude change is unlikely, an alternative route to behavior change
is changing the social norms that encourage antisocial behavior or that prevent prosocial
attitudes from becoming prosocial behavior. For example, in places where abortion is
anathema, women who receive an abortion risk social ostracization. It’s unlikely that a radio
program could change listeners’ deeply held attitudes about abortion, but a program could
reduce ostracization by showing women who receive an abortion as sympathetic characters
who need the support of their community (Green 2017). The radio program could tilt the social
norm scales towards “supporting those in need” and away from “shunning those with whom we
disagree.”

Non-edutainment sources also teach two valuable lessons to creators of CVE programs. The
first is that long-term attitude change requires long-term exposure to the media source
promoting changed attitudes. Studies of individual advertisements or one-off exposures show a
strong immediate effect that decays within days, but studies of a subscription to a news source
or long-term media exposure demonstrate substantial attitude change over time. Theoretically,
these studies agree with a theory of attitudes that posits an attitude as a collection of
“considerations” in an individual’s head (Zaller 1992). The individual samples from these
considerations when exposed to a situation in which the attitude is relevant. By this theory, a
way to change attitudes is either to (1) plant new considerations in an individual’s head, or (2)
increase the probability that certain considerations are sampled and not others. Short-term
exposure would increase the likelihood that a consideration is sampled for a day, but it would
take long-term exposure to reinforce the sampling of that consideration until the consideration
came so strongly connected with the attitude that the attitude and the consideration were
indistinguishable.

The second lesson from non-edutainment sources is that telling people their current views are
wrong will often demobilize people, rather than persuade them. Negative messages about an
attitude do not convince people that an alternative attitude is true, just that their held attitude is
wrong. In order to persuade someone to adopt a new attitude, a radio program should make a
positive argument for that attitude, rather than just showing how the old attitude is bad.
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